



POLARIS®
INDUSTRIES INC.

February 24th, 2020

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**Running Change Application
Off Road Vehicle Application for Certification
LPOLX.924PFC**

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, and the Agency's regulations in Part 2 of Title 40 of the Code of Federal Regulations.	

Polaris requests approval for a fuel pump change to the previously certified models listed below in the model year 2020 engine family LPOLX.924PFC.

- RZR XP TURBO EPS (49-State Model)
- RZR XP 4 TURBO EPS (49-State Model)
- RZR XP EPS TURBO S (49-State Model)
- RZR XP 4 EPS TURBO S (49-State Model)
- RZR XP TURBO S VELOCITY (49-State Model)
- RZR XP 4 TURBO S VELOCITY (49-State Model)

Confidential Business Information

Technical Description Information

The VECI label has been updated to reflect the WR-HO2S emissions control code for Wide Band Oxygen Sensor.

Please see page 3 for an updated Emissions Related Parts Table and Page 12 for an updated VECI label image.

This information can become public immediately.

Confidential Business Information

Technical Description Information



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Sincerely,

Michal Zieba, Product Compliance
Polaris Industries Inc.
7290 East Viking Blvd
Wyoming, MN 55092
michal.zieba@polaris.com



Updated Emissions Related Parts for current certified vehicles

Model	Fuel Pump - Old Part Number	Fuel Pump - New Part Number
RZR XP TURBO EPS	2521705, 2522058	2521963
RZR XP 4 TURBO EPS	2521705, 2522058	2521963
RZR XP EPS TURBO S	2521705, 2522058	2521963
RZR XP 4 EPS TURBO S	2521705, 2522058	2521963
RZR XP TURBO S VELOCITY	2521705, 2522058	2521963
RZR XP 4 TURBO S VELOCITY	2521705, 2522058	2521963

Model	Programmed ECU Previous	Calibration only Previous	New Programmed ECU	New Calibration
RZR XP TURBO EPS	4017325	4017327	4019355	4019356
RZR XP 4 TURBO EPS	4017326	4017328	4019357	4019358
RZR XP EPS TURBO S	4017191	4017192	4019359	4019360
RZR XP 4 EPS TURBO S	4017652	4017653	4019361	4019362
RZR XP TURBO S VELOCITY	4017191	4017192	4019359	4019360
RZR XP 4 TURBO S VELOCITY	4017652	4017653	4019361	4019362

A revised emissions related parts list is provided below for each of the above models. No other changes or additions are being made to the emissions related parts lists.



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Emissions Related Parts for Turbo models

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I	RZR XP TURBO EPS RZR XP TURBO EPS (EVAP)	RZR XP 4 TURBO EPS RZR XP 4 TURBO EPS (EVAP)	
	Part Number	Part Number	Part Manufacturer Name
Electronic Control Units			Confidential Business Information
CDI	NA	NA	
ECU / ECM / PCM (Base ECU)	4015694	4015694	
ECU / ECM / PCM (Calibration)	4019356, 4018789	4019358, 4018791	
ECU / ECM / PCM (Assembly)	4019355, 4018788	4019357, 4018790	
IAC (Idle Air Control)	NA	NA	
Aftertreatment Devices			
Catalyst(s)	1262710	1262710	
Secondary Air	NA	NA	
Fuel Metering Components			
Carburetor	NA	NA	
Fuel Injector(s)	2521914	2521914	
Fuel Pump	2521963	2521963	
Fuel Rail	2522004	2522004	
Fuel Pressure Regulator	Integral to Fuel Pump	Integral to Fuel Pump	
Throttle Body	1204455	1204455	
Throttle Body Adaptor	1205320	1205320	
Gas & Vapor Controls			
Crankcase Vapor Recovery	5415437	5415437	
Hose 1	NA	NA	
Hose 2	NA	NA	
Breather Box	NA	NA	
Breather Valve	NA	NA	
Liquid / Vapor Separator	NA	NA	
Chg - Air Compression Comp			
Pressure Relief Valves	3022784	3022784	
Turbocharger	3023297	3023297	
Charged Air Cooler	1240930	1240930	



Sensors Associated w/above			Confidential Business Information
Cam Phase	NA	NA	
Crank Position(s)	2411719	2411719	
EGT Sensor	NA	NA	
Knock Sensor	2410369	2410369	
Oxygen Sensor(s)	2413317	2413317	
T-Map	2413095	2413095	
Water Temp Sensor(s)	4010644	4010644	
Intake Air Sensor(s)	2413095	2413095	
Throttle Position Sensor(s)	1204455	1204455	
Vehicle Speed Sensor(s)	4013908	4013908	
Pedal Position Sensor(s)	4014042	4014042	
Electronic Throttle Control Sensor(s)	1204455	1204455	
Air Induction System			
Intake Air Box	5450315	5450315	
Adaptor	NA	NA	
Filter	7082211	7082211	
Air Cleaner	NA	NA	
Exhaust			
Head Pipe	1263230	1263230	
Resonator / Silencer	1263164	1263164	
Ignition System			
Ignition Coil(s)	4010425	4010425	
Stator / Alternator	4015340	4015340	
Spark Plug(s)	3023173	3023173	
Spark Plug Wire(s)	4017694 & 4017695	4017694 & 4017695	
Fuel System			
Fuel Cap	2521942	2521942	
Fuel Lines	2521993	2521993	
Fuel Tanks	5439834	5439834	
Vent Line	2521749, 2521716	2521749, 2521716	



EVAP			Confidential Business Information
Carbon Canister	2521893	2521893	
Purge Valves	2521964	2521964	
Mixing Chamber	N/A	N/A	
Lines			
ASM-LINE,PURGE TO TB	2522032	2522032	
ASM-LINE,TANK TO CANISTER	2521716	2521716	
ASM-LINE,VENT TO CANISTER	2521965	2521965	
ASM-LINE,CANISTER TO PURGE	2521966	2521966	
BRKT-MNT CANISTER,BLK	8450040-90	8450040-90	
BRKT-MNT PURGE VALVE,ECOAT	5263210-329	5263210-329	
BRKT-MOUNT RACK	5453458-070	5453458-070	
	5266158-329	5266158-329	
BRKT-PURGE TO TB LINE,MNT	5267307-329	5267307-329	
CLIP-TRIPLE	7082246	7082246	
ASM-THROTTLE BODY,DUAL-EVAP	NA	NA	
HARNESS	2414527, 2414528	2414552, 2414529	
FILTER-CANISTER VENT	2521750	2521750	
Fuel Tank w/pump	2521962	2521962	
CAP-GAS TANK	2521942	2521942	
Fuel Line Assembly	2521993	2521993	
Electronic Controls (ECU)	4014125	4014125	
	2521997	2521997	
Purge Valves	2521964	2521964	
Intake Manifold, EVAP	3023522	3023522	



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Emissions Related Parts for Turbo S Velocity models

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I	RZR XP TURBO S Velocity, RZR XP TURBO S Velocity (EVAP)	RZR XP 4 TURBO S Velocity, RZR XP 4 TURBO S Velocity (EVAP)	
	Part Number	Part Number	Part Manufacturer Name
Electronic Control Units			Confidential Business Information
ECU / ECM / PCM (Base ECU)	4015694	4015694	
ECU / ECM / PCM (Calibration)	4019360, 4018785	4019362, 4018787	
ECU / ECM / PCM	4019359, 4018784	4019361, 4018786	
Aftertreatment Devices			
Catalyst(s)	1262710	1262710	
Fuel Metering Components			
Fuel Injector(s)	2521914	2521914	
Fuel Pump	2521963	2521963	
Fuel Rail	2522004	2522004	
Fuel Pressure Regulator	Integral to Fuel Pump	Integral to Fuel Pump	
Throttle Body	1204455	1204455	
Throttle Body Adaptor	1205320	1205320	
Gas & Vapor Controls			
Crankcase Vapor Recovery	5415437	5415437	
Chg - Air Compression Comp			
Pressure Relief Valves	3022784	3022784	
Turbocharger	3023297	3023297	
Charged Air Cooler	1240930	1240930	



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Sensors			Confidential Business Information
Crank Position(s)	2411719	2411719	
Knock Sensor	2410369	2410369	
Oxygen Sensor(s)	2413317	2413317	
T-Map	2413095	2413095	
Water Temp Sensor(s)	4010644	4010644	
Intake Air Sensor(s)	2413095	2413095	
Throttle Position Sensor(s)	1204455	1204455	
Vehicle Speed Sensor(s)	4013908	4013908	
Pedal Position Sensor(s)	4014042	4014042	
Electronic Throttle Control Sensor(s)	1204455	1204455	
Air Induction System			
Intake Air Box	5450315	5450315	
Filter	7082211	7082211	
Exhaust			
Head Pipe	1263230	1263230	
Resonator / Silencer	1263164	1263164	
Ignition System			
Ignition Coil(s)	4010425	4010425	
Stator / Alternator	4015340	4017285	
Spark Plug(s)	3023173	3023173	
Spark Plug Wire(s)	4017694 & 4017695	4017694 & 4017695	
Fuel System			
Fuel Cap	2521942	2521942	
Fuel Lines	2521993	2521993	
Fuel Tanks	5439834	5439834	
Vent Line	2521749, 2521716	2521749, 2521716	



EVAP			Confidential Business Information
Carbon Canister	2521893	2521893	
Purge Valves	2521964	2521964	
Lines			
ASM-LINE,TANK TO CANISTER	2522032	2522032	
ASM-LINE,VENT TO CANISTER	2521716	2521716	
ASM-LINE,CANISTER TO PURGE	2521965	2521965	
HOSE,PURGE TO CHAMBER	2521966	2521966	
FUEL LINE-90 CENTIMETERS	8450040-90	8450040-90	
BRKT-MNT CANISTER,BLK	5263210-329	5263210-329	
BRKT-MNT CANISTER,BLK	5453458-070	5453458-070	
BRKT-MNT PURGE VALVE,ECOAT	5266158-329	5266158-329	
BRKT-MOUNT RACK	5267307-329	5267307-329	
CLIP-TRIPLE	7082246	7082246	
HARNESS	2414527, 2414528	2414552, 2414529	
FILTER-CANISTER VENT	2521750	2521750	
Fuel Tank w/pump	2521962	2521962	
CAP-GAS TANK	2521942	2521942	
Fuel Line Assembly	2521993	2521993	
Electronic Controls (ECU)	4014125	4014125	
ASM-FUEL PUMP CONTROL MODULE	2521997	2521997	
Purge Valves	2521964	2521964	
ASM-MANIFOLD,VBAND,EVAP	3023522	3023522	



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Emissions Related Parts for Turbo S models

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I	RZR XP TURBO S EPS RZR XP TURBO S EPS (EVAP)	RZR XP 4 EPS TURBO S RZR XP 4 EPS TURBO S (EVAP)	
	Part Number	Part Number	Part Manufacturer Name
Electronic Control Units			Confidential Business Information
CDI	NA	NA	
ECU / ECM / PCM (Base ECU)	4015694	4015694	
ECU / ECM / PCM (Calibration)	4019360, 4018785	4019362, 4018787	
ECU / ECM / PCM (Assembly)	4019359, 4018784	4019361, 4018786	
IAC (Idle Air Control)	NA	NA	
Aftertreatment Devices			
Catalyst(s)	1262710	1262710	
Secondary Air	NA	NA	
Fuel Metering Components			
Carburetor	NA	NA	
Fuel Injector(s)	2521914	2521914	
Fuel Pump	2521963	2521963	
Fuel Rail	2522004	2522004	
Fuel Pressure Regulator	Integral to Fuel Pump	Integral to Fuel Pump	
Throttle Body	1204455	1204455	
Throttle Body Adaptor	1205320	1205320	
Gas & Vapor Controls			
Crankcase Vapor Recovery	5415437	5415437	
Hose 1	NA	NA	
Hose 2	NA	NA	
Breather Box	NA	NA	
Breather Valve	NA	NA	
Liquid / Vapor Separator	NA	NA	



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Chg - Air Compression Comp		
Pressure Relief Valves	3022784	3022784
Turbocharger	3023297	3023297
Charged Air Cooler	1240930	1240930
Sensors Associated w/above		
Cam Phase	NA	NA
Crank Position(s)	2411719	2411719
EGT Sensor	NA	NA
Knock Sensor	2410369	2410369
Oxygen Sensor(s)	2413317	2413317
T-Map	2413095	2413095
Water Temp Sensor(s)	4010644	4010644
Intake Air Sensor(s)	2413095	2413095
Throttle Position Sensor(s)	1204455	1204455
Vehicle Speed Sensor(s)		
Pedal Position Sensor(s)	4014042	4014042
Electronic Throttle Control Sensor(s)	1204455	1204455
Air Induction System		
Intake Air Box	5450315	5450315
Adaptor	NA	NA
Filter	7082211	7082211
Air Cleaner	NA	NA
Exhaust		
Head Pipe	1263230	1263230
Resonator / Silencer	1263164	1263164
Ignition System		
Ignition Coil(s)	4010425	4010425
Stator / Alternator	4017285	4017285
Spark Plug(s)	3023173	3023173
Spark Plug Wire(s)	4017694 & 4017695	4017694 & 4017695
Fuel System		
Fuel Cap	2521942	2521942
Fuel Lines	2521993	2521993
Fuel Tanks	5439834	5439834
Vent Line	2521749, 2521716	2521749, 2521716

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EVAP		
Carbon Canister	2521893	2521893
Purge Valves	2521964	2521964
Mixing Chamber	N/A	N/A
Lines		
ASM-LINE,PURGE TO TB	2522032	2522032
ASM-LINE,TANK TO CANISTER	2521716	2521716
ASM-LINE,VENT TO CANISTER	2521965	2521965
ASM-LINE,CANISTER TO PURGE	2521966	2521966
BRKT-MNT CANISTER,BLK	8450040-90	8450040-90
BRKT-MNT PURGE VALVE,ECOAT	5263210-329	5263210-329
BRKT-MOUNT RACK	5453458-070	5453458-070
	5266158-329	5266158-329
BRKT-PURGE TO TB LINE,MNT	5267307-329	5267307-329
CLIP-TRIPLE	7082246	7082246
ASM-THROTTLE BODY,DUAL-EVAP	NA	NA
HARNESS	2414527, 2414528	2414552, 2414529
FILTER-CANISTER VENT	2521750	2521750
Fuel Tank w/pump	2521962	2521962
CAP-GAS TANK	2521942	2521942
Fuel Line Assembly	2521993	2521993
Electronic Controls (ECU)	4014125	4014125
	2521997	2521997
Purge Valves	2521964	2521964
Intake Manifold, EVAP	3023522	3023522

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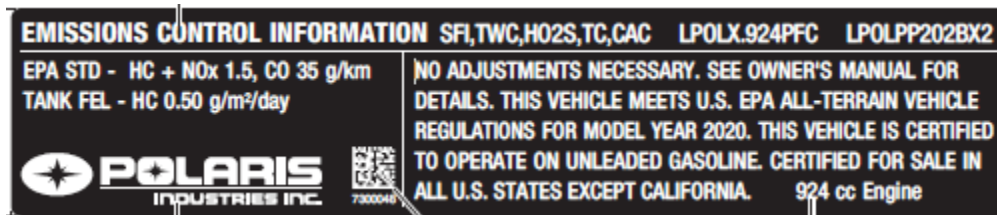
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VECI label image

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Technical Description Information



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Technical Description Information



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Technical Description Information



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Running Change Application
Off Road Vehicle Application for Certification
LPOLX.924PFC

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	Mr. Alan Leung California Air Resources Board Emissions Compliance Automotive Regulations and Science Division 9480 Telstar Avenue Ste # 4 El Monte, CA 91731
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, and the Agency's regulations in Part 2 of Title 40 of the Code of Federal Regulations.	

Polaris requests certification for the model year 2020 models in engine family LPOLX.924PFC described herein.

- RZR PRO XP 4 (49-State Model)
- RZR PRO XP 4 Premium (49-State Model)
- RZR PRO XP 4 Premium Ride Command (49-State Model)
- RZR PRO XP 4 Ultimate (49-State Model)
- RZR PRO XP 4 (50 State - CARB Evap emissions compliant model)
- RZR PRO XP 4 Premium (50 State - CARB Evap emissions compliant model)
- RZR PRO XP 4 Premium Ride Command (50 State - CARB Evap emissions compliant model)
- RZR PRO XP 4 Ultimate (50 State - CARB Evap emissions compliant model)

This application includes [new model additions](#) to Engine Family LPOLX.924PFC, New EFEL established for A2B EVAP family with an updated EVAP label and Attachment B.

Polaris also requests a name change for the Pro XP Platinum models to the Pro XP Ultimate models.

Polaris also requests certification for calibration changes to the previously certified models listed below in the model year 2020 engine family LPOLX.924PFC.

- RZR PRO XP (49-State Model)
- RZR PRO XP Premium (49-State Model)
- RZR PRO XP Premium Ride Command (49-State Model)
- RZR PRO XP Ultimate (49-State Model)
- RZR PRO XP (50 State - CARB Evap emissions compliant model)
- RZR PRO XP Premium (50 State - CARB Evap emissions compliant model)
- RZR PRO XP Premium Ride Command (50 State - CARB Evap emissions compliant model)
- RZR PRO XP Ultimate (50 State - CARB Evap emissions compliant model)

The changes from the previous to new calibrations are limited to load limiting conditions and fuel level indication, which do not affect vehicle tailpipe emissions. Please see Page 6 for updated Emissions Related Parts Table listing the new calibration part numbers.

All Pro XP and Pro XP 4 are receiving an updated Driven/Secondary Clutch Spring. This change has no impact on emissions.



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New evaporative emissions test data is included in the application. The EVAP information for EVAP System A2B starts on page 10.

This information can become public after 10-15-2019.

Confidential Business Information

Sincerely,

Michal Zieba, Product Compliance
Polaris Industries Inc.
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Summary Information (Verify system checklist)

EPA Manufacturer Code		POL
Model Year *		2020
Engine Family *		LPOLX.924PFC
Introduction into Commerce Date (Confidential Business Information
1	Is this the first certificate ever issued to this company? *	No
2	Is this an ABT engine family? * The ABT plan was included in the common section of the application for certification or the engine family-specific section of the application. *	No
3	All of the test vehicle(s)/engine(s) passed all applicable exhaust and evaporative emission standards. *	Yes
4.1	If this is a California-only engine family, has a California ARB executive order been issued yet? * If yes, what is the executive order number? *	N/A
4.2	If this is a 50-State engine family, have you received notifications that your Certification Summary Information (CSI) application was accepted by EPA's Verify system and CARB's E-Cert system? *	N/A
5	All the vehicles/engines covered by this application meet the appropriate emission standards (including any Family Emission Limits if applicable). *	Yes
6	All production vehicles/engines will be within the scope of this application with respect to materials, engine design, drivetrain, fuel system, emission control system strategy and components, exhaust after-treatment devices, vehicle mass, and any other device or component that can reasonably be expected to influence exhaust emissions. *	Yes
7	The required certification fee has been paid. *	Yes
8	All required data and application document(s) have been submitted to EPA. *	Yes
9	The vehicles/engines covered by this application are free of defeat devices and strategies. *	Yes



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Contacts/Importers/Agents of Service/Ports



	MASS CLASS INFORMATION*	EPA Classification		California Classification	
		NAME	TYPE	NAME	TYPE
	Curb Mass: 963 California Sales: 50	RZR PRO XP 4 Verify #31	ATV B	RZR PRO XP 4 (50 State Model) Verify #33	ORSV
	Curb Mass: 975 California Sales: 300	RZR PRO XP 4 Premium Verify #34	ATV B	RZR PRO XP 4 Premium (50 State Model) Verify #36	ORSV
	Curb Mass: 979 California Sales: 25	RZR PRO XP 4 Premium Ride Command Verify #37	ATV B	RZR PRO XP 4 Premium Ride Command (50 State Model) Verify #39	ORSV
	Curb Mass: 985 California Sales: 125	RZR PRO XP 4 Ultimate Verify #40	ATV B	RZR PRO XP 4 Ultimate (50 State Model) Verify #42	ORSV

*The curb mass values in this table reflect the worst-case factory configuration. The values in CSI.7 include additional accessory weight.

Verify Code Name

- CSI.5, EDV1
- CSI.5, EDV2

Model Name: Code 1 = RZR 1000 XP TURBO

Model Name: Code 2 = RZR PRO XP Ultimate

Vehicle Dimensions

Vehicle	Length	Width	Height	Track Width	Wheelbase
RZR Pro XP 4	155.1"	64"	74.5"	58"F/57"R	125"
RZR Pro XP 4 Premium	155.1"	64"	74.5"	58"F/57"R	125"
RZR Pro XP 4 Premium + Ride Command	155.1"	64"	74.5"	58"F/57"R	125"
RZR Pro XP 4 Dynamix	155.1"	64"	74.5"	58"F/57"R	125"



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Updated Emissions Related Parts for current certified vehicles

Model	Calibration - Old Part Number	Calibration - New Part Number
RZR Pro XP	4018030	4019128
RZR Pro XP (EVAP)	4018273	4019130

Model	ECU Programmed- Old Part Number	ECU Programmed - New Part Number
RZR Pro XP	4018029	4019127
RZR Pro XP (EVAP)	4018272	4019129



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Emissions Related Parts for new models - 49 state

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I	RZR Pro XP 4	RZR Pro XP 4 Premium	RZR Pro XP 4 Premium + Ride Command	RZR Pro XP 4 Ultimate	
	Part Number				Part Manufacturer Name
Electronic Control Units					
CDI		NA			
ECU / ECM / PCM (Base ECU)		4015694			
ECU / ECM / PCM (Calibration)		4018545			
ECU / ECM / PCM (Assembly)		4018502			
IAC (Idle Air Control)		NA			
Aftertreatment Devices					
Catalyst(s)		1262710			
Secondary Air		NA			
Fuel Metering Components					
Carburetor		NA			
Fuel Injector(s)		2521914			
Fuel Pump		2522241			
Fuel Rail		2522004			
Fuel Pressure Regulator		Integral to Fuel Pump			
Throttle Body		1204455			
Throttle Body Adaptor		1205320			
Gas & Vapor Controls					
Crankcase Vapor Recovery		5416756			
Hose 1		NA			
Hose 2		NA			
Breather Box		NA			
Breather Valve		NA			
Liquid / Vapor Separator		NA			
Chg - Air Compression Comp					
Pressure Relief Valves		3022784			
Turbocharger		3023715			
Charged Air Cooler		1240930			
Sensors Associated w/above					
Cam Phase		NA			
Crank Position(s)		2411719			
EGT Sensor		NA			
Knock Sensor		2410369			
Oxygen Sensor(s)		2413317			
T-Map		2413095			
Water Temp Sensor(s)		4010644			
Intake Air Sensor(s)		2413095			
Throttle Position Sensor(s)		1204455			
Vehicle Speed Sensor(s)		4013908			
Pedal Position Sensor(s)		4017988			
Electronic Throttle Control Sensor(s)		1204455			
Air Induction System					
Intake Air Box		5455404			
Adaptor		NA			
Filter		7082211			
Air Cleaner		NA			
Exhaust					
Head Pipe		1263282			
Resonator / Silencer		1263379			
Ignition System					
Ignition Coil(s)		4015017			
Stator / Alternator		4019180			
Spark Plug(s)		3023173			
Spark Plug Wire(s)		NA			
Fuel System					
Fuel Cap		2522069			
Fuel Lines		2521927			
Fuel Tanks		5455833			
Vent Line		2522082			

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Emissions Related Parts for New Models - 50 state

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I		RZR Pro XP 4 (EVAP)	RZR Pro XP 4 Premium (EVAP)	RZR Pro XP 4 Premium + Ride Command (EVAP)	RZR Pro XP 4 Ultimate (EVAP)	
	Part Number					Part Manufacturer Name
Electronic Control Units						Confidential Bu Information
CDI	NA					
ECU / ECM / PCM (Base ECU)	4015694					
ECU / ECM / PCM (Calibration)	4018378					
ECU / ECM / PCM (Assembly)	4018377					
IAC (Idle Air Control)	NA					
Aftertreatment Devices						
Catalyst(s)	1262710					
Secondary Air	NA					
Fuel Metering Components						
Carburetor	NA					
Fuel Injector(s)	2521914					
Fuel Pump	2522241					
Fuel Rail	2522004					
Fuel Pressure Regulator	Integral to Fuel Pump					
Throttle Body	1204455					
Throttle Body Adaptor	1205320					
Gas & Vapor Controls						
Crankcase Vapor Recovery	5416756					
Hose 1	NA					
Hose 2	NA					
Breather Box	NA					
Breather Valve	NA					
Liquid / Vapor Separator	NA					
Chg - Air Compression Comp						
Pressure Relief Valves	3022784					
Turbocharger	3023715					
Charged Air Cooler	1240930					
Sensors Associated w/above						
Cam Phase	NA					
Crank Position(s)	2411719					
EGT Sensor	NA					
Knock Sensor	2410369					
Oxygen Sensor(s)	2413317					
T-Map	2413095					
Water Temp Sensor(s)	4010644					
Intake Air Sensor(s)	2413095					
Throttle Position Sensor(s)	1204455					
Vehicle Speed Sensor(s)	4013908					
Pedal Position Sensor(s)	4017988					
Electronic Throttle Control Sensor(s)	1204455					



Air Induction System					
Intake Air Box			5455404		
Adaptor			NA		
Filter			7082211		
Air Cleaner			NA		
Exhaust					
Head Pipe			1263282		
Resonator / Silencer			1263379		
Ignition System					
Ignition Coil(s)			4015017		
Stator / Alternator			4019180		
Spark Plug(s)			3023173		
Spark Plug Wire(s)			NA		
Fuel System					
Fuel Cap			2522069		
Fuel Lines			2521927		
Fuel Tanks			5455833		
Vent Line			NA		
EVAP					
Carbon Canister			2521786		
Purge Valves			2521964		
Mixing Chamber			NA		
Lines					
ASM-LINE,PURGE TO TB			2521959		
ASM-LINE,TANK TO CANISTER			2522079		
ASM-LINE,VENT TO CANISTER			8450210		
ASM-LINE,CANISTER TO PURGE			2522081		
BRKT-MNT CANISTER,BLK			5266986-329		
BRKT-MNT PURGE VALVE,ECOAT			5268112-329		
BRKT-MOUNT RACK			NA		
BRKT-PURGE TO TB LINE,MNT			NA		
CLIP-TRIPLE DOUBLE			7082454		
ASM-THROTTLE BODY,DUAL-EVAP			NA		
HARNESS			NA		
FILTER-CANISTER VENT			2521750		
Fuel Tank w/pump			2522094		
CAP-GAS TANK			2522069		
Fuel Line Assembly			2521927		
Electronic Controls (ECU)			4018377		
Purge Valves			2521964		
Intake Manifold, EVAP			1206038		

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Information



Evaporative Application for Certification
System Model A2B
EVAP Family LPOLU0062APC

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	Mr. Alan Leung California Air Resources Board Emissions Compliance Automotive Regulations and Science Division 9480 Telstar Avenue Ste # 4 El Monte, CA 91731
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, the EPA regulations in Part 2 of Title 40 of the Code of Federal Regulations, and the CARB regulations in 13 CCR 91000-91022.	

Polaris requests Carry Over certification for the model year 2020 EVAP System Model A2B in the Evaporative Family LPOLU0062APC. The current list of vehicles covered by this evaporative emissions family are shown below, with the new vehicle models being added with this submission shown in [blue font](#).

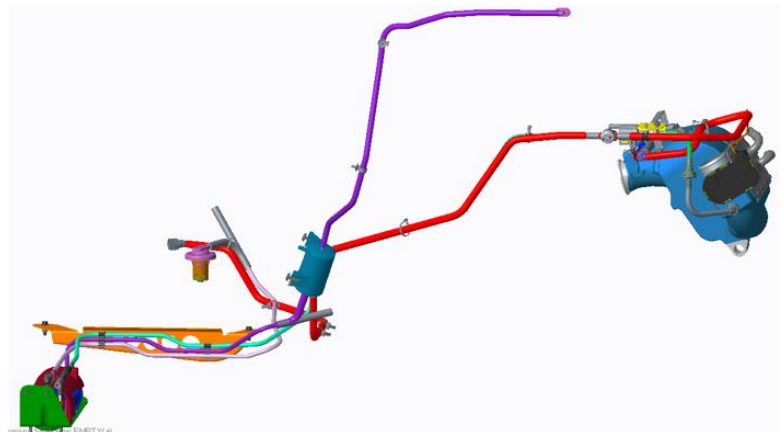
The RZR Pro XP models are equipped with a larger 62 gram working capacity canister which required a new EVAP family.

There is new test data submitted with this application specific to the LPOLU0062APC EVAP family.

Exhaust Engine Family	Prior 50-State Models w/ Evap	Models Being Added in This Submission
LPOLX.924PFC	RZR Pro XP RZR Pro XP Premium RZR Pro XP Premium Ride Command RZR Pro XP Ultimate	RZR Pro XP 4 RZR Pro XP 4 Premium RZR Pro XP 4 Premium Ride Command RZR Pro XP 4 Ultimate

Please call Brad Bahneman at (651) 408-7763 or me at (651) 408-6301 if you have any questions regarding this application.

Sincerely,





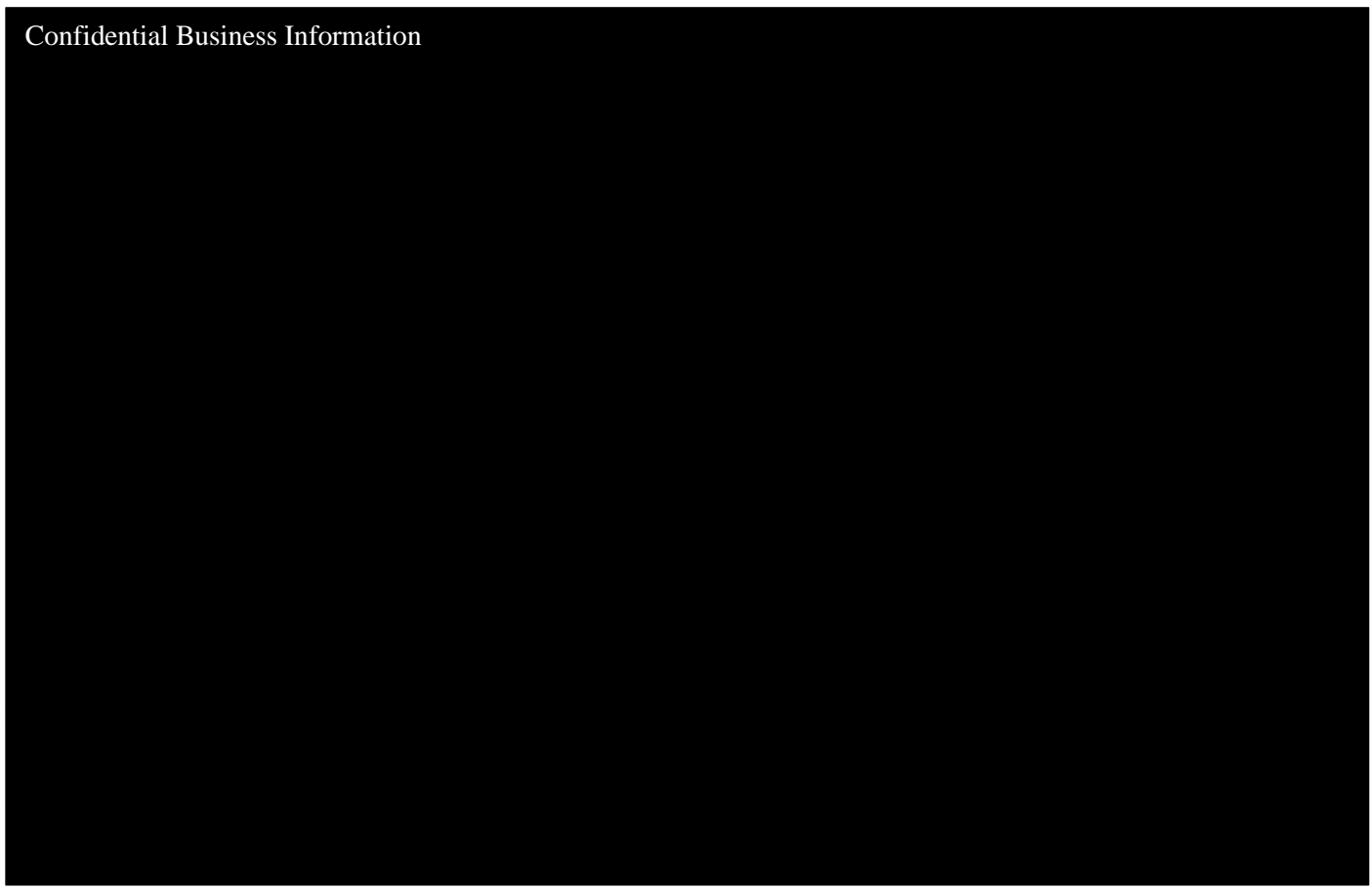
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Michal Zieba, Product Compliance
Polaris Industries Inc.
7290 East Viking Blvd
Wyoming, MN 55092
michal.zieba@polaris.com

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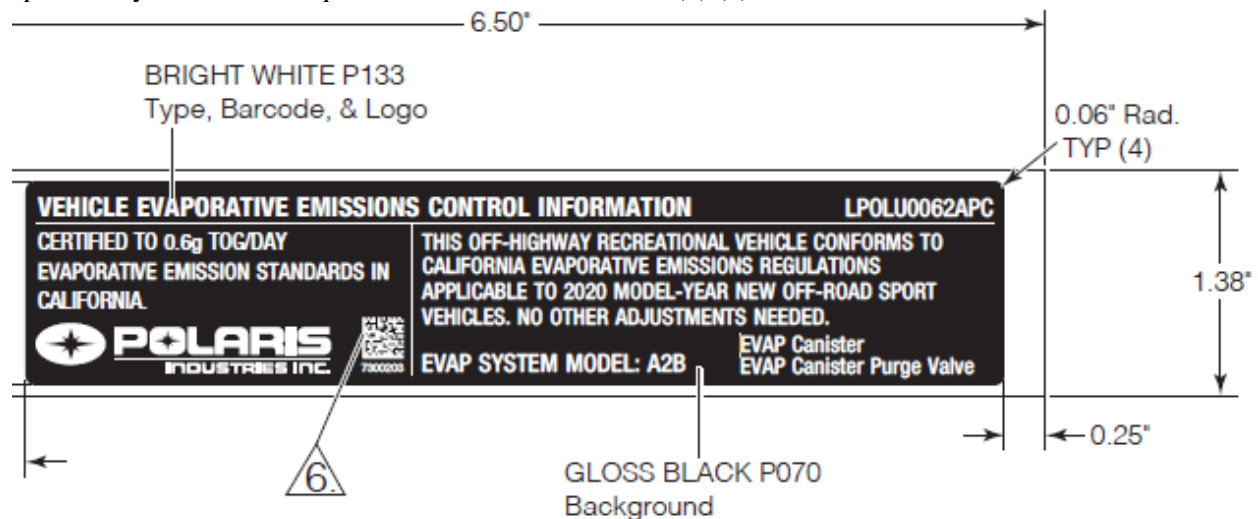
Test Procedures and Underlying Information

13 CCR 2419.4 (b) (4)

(B), (G) Emissions Control Label

The VECI label(s) for the exhaust emission families served by EVAP family LPOLU0062APC are included in the corresponding exhaust emissions application.

The separate EVAP label below for evaporative emissions family LPOLU0062APC was designed specifically to meet the requirements of 13 CCR 2419.4 (b) (4).



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13 CCR 2418(a)(1)(A)

(I) EVAP Emissions Test Data - Demonstration of Compliance with Diurnal Standards

Polaris Test Report 64249

Test Results

VVVT SHED	
WEMI	
----- TEST ID -----	
REPORT FILENAME (TEST ID.TXT)	1906131949.txt
DATALOG FILENAME (TEST ID.CSV)	1906131949.csv
----- TEST RESULTS -----	
Test Name: EPA - 72HR 72-96-72	
MAX Error Value: 0	
TBC Rise / Test: 0.469 gm	
TBC Max Phase Rise: 0.169 gm	Including Eth Corr factor (1.24) Total HC emissions = 0.210g
CH4 Rise / Test: 0.000 gm	
CH4 Max Phase Rise: 0.000 gm	
Engine Off Time not Required	
----- TEST TIME -----	
START DATE	6/13/2019
START TIME (AT DOOR SEAL)	19:49:26
END DATE	6/16/2019
END TIME (AFTER FINAL SAMPLE)	19:51:26
TEST LENGTH	0072:02:00

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(I) EVAP Emissions Test Data – Evaporative Emissions Testing Pre-conditioning

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TEST RESULTS

The following test results were recorded for 2800-02 with the Polaris Inc. Rogue Viper MP Fuel System:

Pressure/Vacuum Test

The Pressure/Vacuum Test was performed on 1/7/2019.

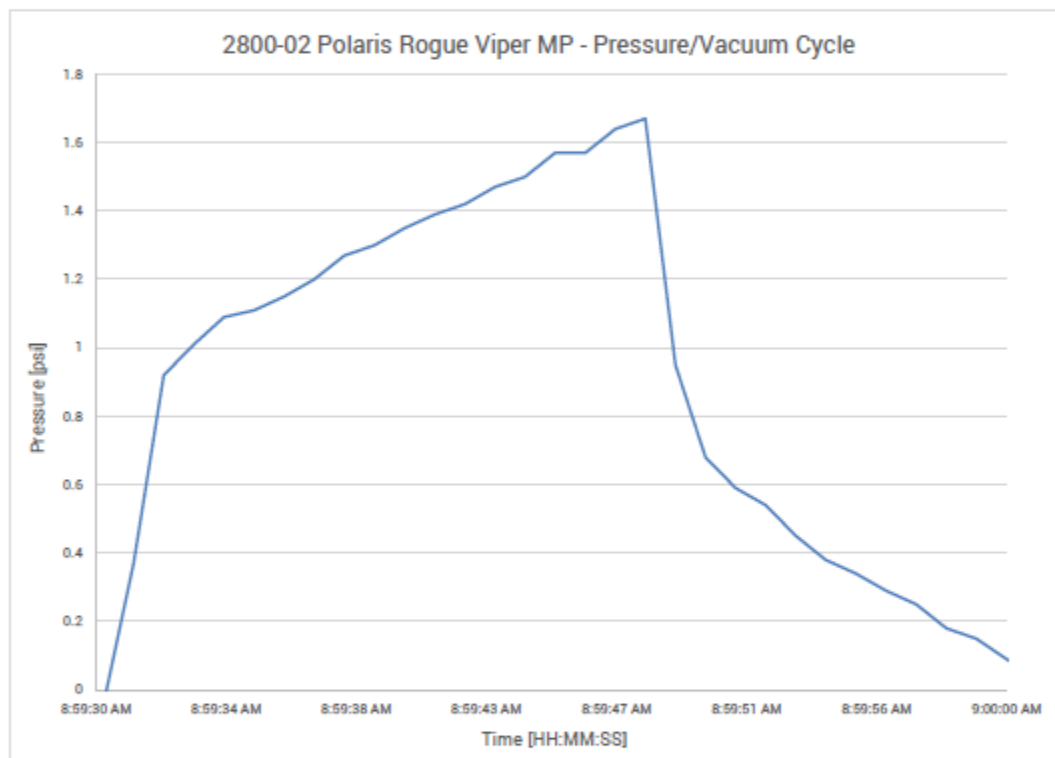


Figure 1. Example of one (1) cycle of the Pressure/Vacuum Test on the fuel tank.

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Accelerated System Soak

The Polaris Rogue Viper MP undergone the Accelerated System Soak for the following time period:

Accelerated System Soak – Polaris Rogue Viper MP	
Date Start	2/20/2019
Date End	5/2/2019
Time in Soak	71 Days
Soak Temperature	105°F ± 2°F

Carbon Canister – Thermal Exposure

For thermal cycling, the carbon canister was subject to at least one hundred (100) cycles of the temperature profile described in TP-933 Section 4.1.1.

Carbon Canister Thermal Exposure – Polaris Rogue Viper MP	
Date Start	5/14/2019
Date End	5/21/2019
Cycle Count	100

Carbon Canister – Vibration Test

The Polaris Rogue Viper MP performed the Carbon Canister – Vibration Test:

Carbon Canister Vibration Test – Polaris Rogue Viper MP	
Date Start	5/9/2019
Average Acceleration [g]	4.51 g
Average Frequency [Hz]	60.00 Hz
Duration [Hr]	51.45 Hr
Cycle Count	11,115,050

The first segment of the test (5/9/2019 – 5/11/2019) was interrupted due to a power outage. As a result, the test was resumed on (5/13/2019 – 5/14/2019).

Carbon Canister Protection – Tip Test

The Polaris Rogue Viper MP performed the Carbon Canister Protection– Tip Test:

Carbon Canister Protection Tip Test – Polaris Rogue Viper MP			
Date	Test Mode	Mass Before Tip [g]	Mass After Tip [g]
5/8/2019	Backward Tilt	808.3	808.1
5/8/2019	Forward Tilt	808.1	808.3
5/8/2019	Side Tilt (Driver)	808.3	808.2
5/8/2019	Side Tilt (Passenger)	808.4	808.4

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Fuel System Leakage – Tip Test

The Polaris Rogue Viper MP performed the Fuel System Leakage – Tip Test on 4/3/2019. No fuel or leaks were observed throughout the duration of the test.



Figure 2. Performing the Tip Test on the 2800-02 Polaris Rogue Viper MP

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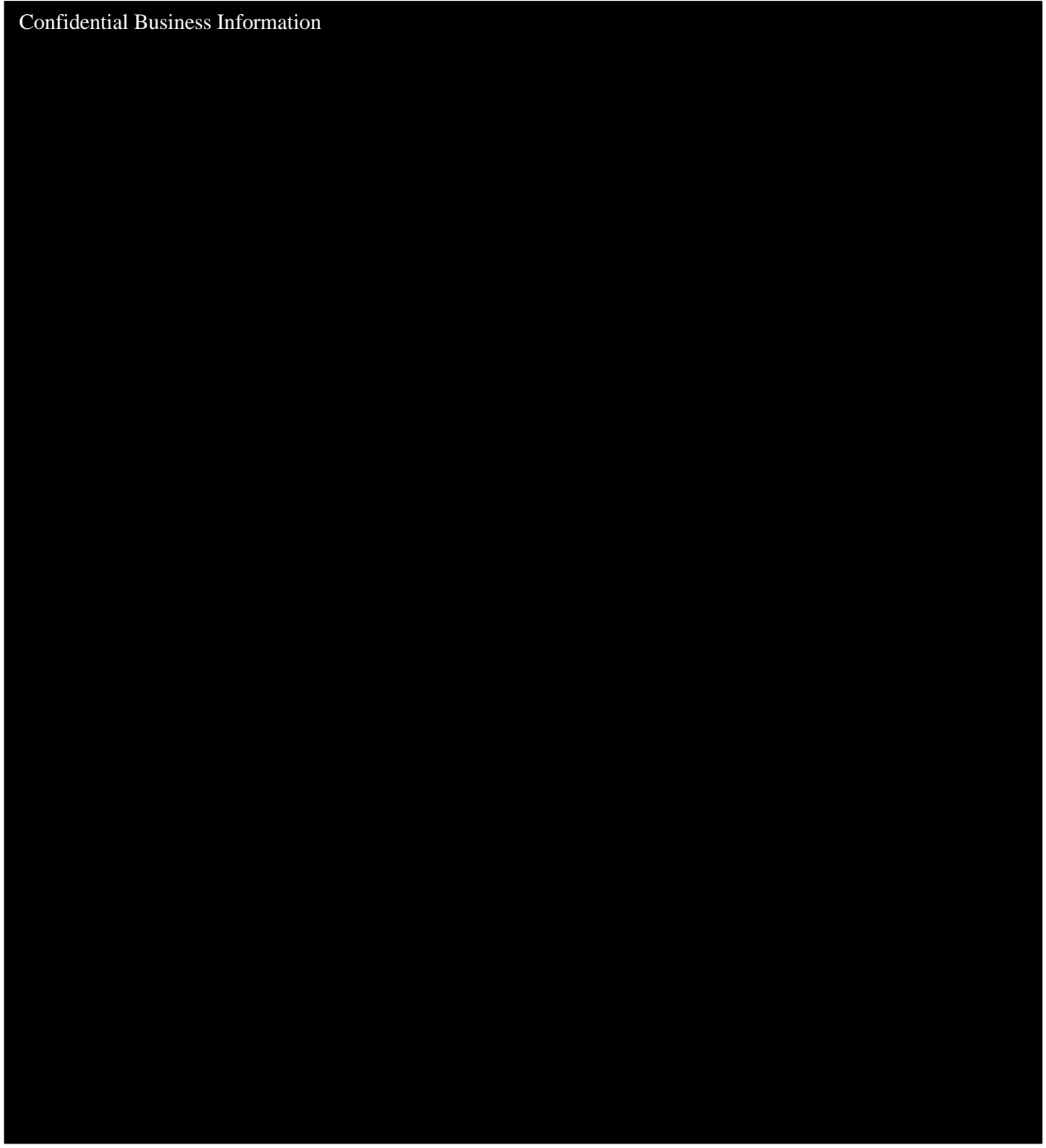


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Verify Data – A2B

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EO # U-M-
CARB Use Only.

Evaporative Family Description (A2B System)	
Manufacturer	<u>Polaris Industries</u>
Model Year	2020
Manufacturer Size (Check One)	Large <input checked="" type="checkbox"/> Small <input type="checkbox"/>
Advanced Fuel System Credits	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Compliance Option (Check One)	72-Hr. Diurnal <input checked="" type="checkbox"/> 24-Hr. Diurnal <input type="checkbox"/>
Durability Basis (Check One)	UL Vehicle <input checked="" type="checkbox"/> DF <input type="checkbox"/>

Emission Data Vehicle (EDV)	
Engine Family	<u>LPOLX.924PFC</u>
Evaporative Family	<u>LPOLU0062APC</u>
EDV Model Year	<u>2020</u>
Fuel System	Carburetor <input type="checkbox"/> TBI <input type="checkbox"/> MFI <input type="checkbox"/> SFI <input checked="" type="checkbox"/> DFI <input type="checkbox"/> Other <input type="checkbox"/>
Canister	Volume (cc) <u>1200</u> W/C (grams) <u>59.58</u> N/A <input type="checkbox"/>
Purge Valve	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Pressure Vent Valve	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Durability Data Vehicle (DDV)	
Engine Family	<u>LPOLX.924PFC</u>
Evaporative Family	<u>LPOLU0062APC</u>
DDV Model Year	<u>2020</u>
Fuel System	Carburetor <input type="checkbox"/> TBI <input type="checkbox"/> MFI <input type="checkbox"/> SFI <input checked="" type="checkbox"/> DFI <input type="checkbox"/> Other <input type="checkbox"/>
Canister	Volume (cc) <u>1200</u> W/C (grams) <u>59.58</u>
Purge Valve	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Pressure Vent Valve	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

72-Hour Diurnal Test	
CERT (TOG/day)	<u>0.21</u>
STD (TOG/day)	<u>1</u>
EFEL	<u>0.6</u>
DF	<u>n.a.</u>
Pass Fuel Leakage Tip Test?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

24-Hour Diurnal Test	
CERT (TOG/day)	<u> </u>
STD (TOG/day)	<u> </u>
EFEL	<u> </u>
DF	<u> </u>
Vented Emissions Compliance, 6.4.2.5. a) NVL \geq V _{total} ?	Yes <input type="checkbox"/> No <input type="checkbox"/>
(Select One) 6.4.2.5. b) Use 2 psig PVV?	Yes <input type="checkbox"/> No <input type="checkbox"/>
6.4.2.5. c) No PVV release?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Pass Fuel Leakage Tip Test?	Yes <input type="checkbox"/> No <input type="checkbox"/>

SVM Certify By Design		
Fuel Tank Perm.	Fuel Hose Perm.	Canister Working Capacity per Fuel Tank Volume
CARB Component EO Number	<u> </u>	<u> </u>
CERT	<u> </u>	<u> </u>
STD	<u> </u>	<u> </u>
Pass Fuel Leakage Tip Test?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

ABBREVIATIONS: CARB=California Air Resources Board; EO=Executive Order; TOG=total organic gases; CERT=certification level; STD=certification standard; EFEL=evaporative family emission limit; DF=deterioration factor; UL=useful life; EDV=emission data vehicle; DDV=durability data vehicle; TBI=throttle body fuel injection; MFI=multipoint fuel injection; SFI=sequential multipoint fuel injection; DFI=direct gasoline fuel injection; psig=pounds per square inch - gauge; W/C=canister gasoline working capacity; NVL=normalized vapor load.

Issued: 2017-06-06



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**Running Change Application
Off Road Vehicle Application for Certification
LPOLX.924PFC**

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	Mr. Alan Leung California Air Resources Board Emissions Compliance Automotive Regulations and Science Division 9480 Telstar Avenue Ste # 4 El Monte, CA 91731
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, and the Agency's regulations in Part 2 of Title 40 of the Code of Federal Regulations.	

Polaris requests certification for the model year 2020 models in engine family LPOLX.924PFC described herein.

- RZR PRO XP (49-State Model)
- RZR PRO XP Premium (49-State Model)
- RZR PRO XP Premium Ride Command (49-State Model)
- RZR PRO XP Platinum (49-State Model)
- RZR PRO XP (50 State - CARB Evap emissions compliant model)
- RZR PRO XP Premium (50 State - CARB Evap emissions compliant model)
- RZR PRO XP Premium Ride Command (50 State - CARB Evap emissions compliant model)
- RZR PRO XP Platinum (50 State - CARB Evap emissions compliant model)

This application includes new worst-case EDV2 data at an increased EIM, updated consumer hangtag, AECD, types of vehicle table, and emissions-related parts for the vehicles listed above.

New evaporative emissions test data is included in the application. The EVAP information for EVAP System A2B starts on page 25.

Polaris also requests certification for calibration changes to the the previously certified models listed below in the model year 2020 engine family LPOLX.924PFC.

- RZR XP TURBO EVAP (50 State - CARB Evaporative emissions compliant model)
- RZR XP 4 TURBO EVAP (50 State - CARB Evaporative emissions compliant model)
- RZR XP TURBO S EVAP (50 State - CARB Evaporative emissions compliant model)
- RZR XP 4 TURBO S EVAP (50 State - CARB Evaporative emissions compliant model)

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Technical Description Information



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The Calibration Part numbers listed on Page 24 are replacing the current calibrations for the RZR XP Turbo models.

This information can become public after 8-1-2019.

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Sincerely,

Michal Zieba, Product Compliance
Polaris Industries Inc.
7290 East Viking Blvd
Wyoming, MN 55092
michal.zieba@polaris.com





Summary Information (Verify system checklist)

EPA Manufacturer Code		POL
Model Year *		2020
Engine Family *		LPOLX.924PFC
Introduction into Commerce Date		Confidential Business Information
1	Is this the first certificate ever issued to this company? *	No
2	Is this an ABT engine family? * The ABT plan was included in the common section of the application for certification or the engine family-specific section of the application. *	No
3	All of the test vehicle(s)/engine(s) passed all applicable exhaust and evaporative emission standards. *	Yes
4.1	If this is a California-only engine family, has a California ARB executive order been issued yet? * If yes, what is the executive order number? *	N/A
4.2	If this is a 50-State engine family, have you received notifications that your Certification Summary Information (CSI) application was accepted by EPA's Verify system and CARB's E-Cert system? *	N/A
5	All the vehicles/engines covered by this application meet the appropriate emission standards (including any Family Emission Limits if applicable). *	Yes
6	All production vehicles/engines will be within the scope of this application with respect to materials, engine design, drivetrain, fuel system, emission control system strategy and components, exhaust after-treatment devices, vehicle mass, and any other device or component that can reasonably be expected to influence exhaust emissions. *	Yes
7	The required certification fee has been paid. *	Yes
8	All required data and application document(s) have been submitted to EPA. *	Yes
9	The vehicles/engines covered by this application are free of defeat devices and strategies. *	Yes



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Contacts/Importers/Agents of Service/Ports



	MASS CLASS INFORMATION*	EPA Classification		California Classification	
		NAME	TYPE	NAME	TYPE
	Curb Mass: 840 California Sales: 87	RZR PRO XP Verify #19	ATV B	RZR PRO XP (50 State Model) Verify #21	ORSV
	Curb Mass: 846 California Sales: 272	RZR PRO XP Premium Verify #22	ATV B	RZR PRO XP Premium (50 State Model) Verify #24	ORSV
	Curb Mass: 852 California Sales: 25	RZR PRO XP Premium Ride Command Verify #25	ATV B	RZR PRO XP Premium Ride Command (50 State Model) Verify #27	ORSV
	Curb Mass: 858 California Sales: 116	RZR PRO XP Platinum Verify #28	ATV B	RZR PRO XP Platinum (50 State Model) Verify #30	ORSV

*The curb mass values in this table reflect the worst case factory configuration. The values in CSI.7 include additional accessory weight.

Verify Code Name

- CSI.5, EDV1
- CSI.5, EDV2

Model Name: Code 1 = RZR 1000 XP TURBO

Model Name: Code 2 = RZR PRO XP Platinum

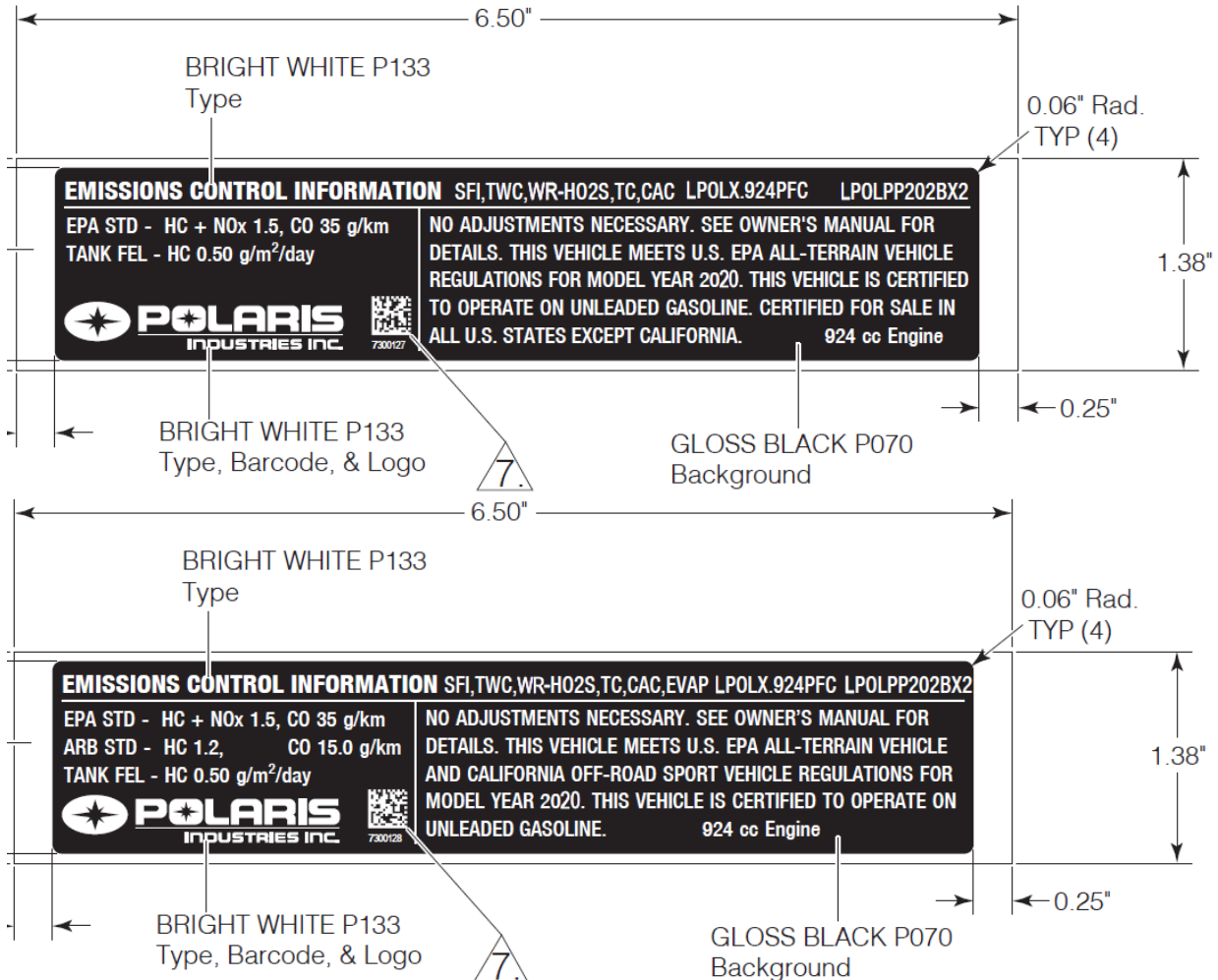
Vehicle Dimensions

Vehicle	Length	Width	Height	Track Width	Wheelbase
RZR Pro XP	126.1	64"	71.7"	58"F/57"R	96"
RZR Pro XP Premium	126.1	64"	71.7"	58"F/57"R	96"
RZR Pro XP Premium + Ride Command	126.1	64"	71.7"	58"F/57"R	96"
RZR Pro XP Dynamic	126.1	64"	71.7"	58"F/57"R	96"



VECI - Emissions Control Labels

Engine Family LPOLX.924PFC consists of an 924cc 4-stroke engine only.






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Consumer Hangtags

The hangtag will be located on the steering wheel or transmission lever.

Polaris Industries Inc. Consumer Emissions Information Hang Tag		FRONT SIDE
Vehicle Type:	All-terrain Vehicle	PAF
Vehicle Model Name(s):	RZR XP TURBO, RZR XP 4 TURBO, RZR XP TURBO S, Pro XP	9
Engine Description:	924 cc 4-stroke, liquid-cooled, electronic fuel injection	
NER:	3.5	
		
<small>The normalized emission rate (NER) is defined by the U.S. Environmental Protection Agency in 40 CFR 1051.137(a). Values range from 0 to 10, with 0 representing lower exhaust emissions and 10 representing higher exhaust emissions.</small>		
<small>This hang tag may be removed only by the ultimate consumer after the vehicle has been purchased.</small>		
<small>Printed in U.S.A.</small>		

3/16" BRASS EYELET

Polaris Industries Inc. OHRV Tampering Statement		BACK SIDE
<small>"The removal or modification of evaporative emission-related parts on this OHRV is illegal. Violators may be subject to civil and/or criminal penalties as provided under California and federal law."</small>		
<small>"This tag may not be removed under penalty of law except by the vehicle owner."</small>		
<small>Any tampering, removal or modifications of the evaporative emissions control system is prohibited under Part 1068.101(b)(1), Title 40, Code of Federal Regulations.</small>		



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EDV.2 Exhaust Emissions Certification Test Data (EPA Tier 2 Fuel)

HORIBA

Emission Test Results
Summary Report

HORIBA

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Test Procedures and Underlying Information

Fuel Info

Fuel Type	Gasoline	Density (kg/l)	0.7430
Fuel Name	EPA Tier II G30521LT10	HC Ratio	1.8080
Batch No.	G30521LT10	OC Ratio	0.0000
Fuel Pump Number	0	C.W.F.	86.8300
RVP	9.1	N.H.V.	42.8900

Bag Analysis Results

	CO2 (g/km)	CO (g/km)	THC (g/km)	NOx (g/km)	HC+NOx (g/km)	CH4 (g/km)	N2O (g/km)	NMHC (g/km)	NMHC+NOx (g/km)	Fuel Cons. (l/100km)	Distance (km)
Total	292.338	3.424	0.183	0.590	0.773	0.025	0.000	0.160	0.750	12.6442	15.548
Sample 1	290.883	6.480	0.332	0.663	0.995	0.043	0.001	0.293	0.956	12.8061	4.666
Sample 2	308.147	1.497	0.103	0.505	0.608	0.014	0.000	0.089	0.594	13.1750	6.218
Sample 3	272.716	2.935	0.142	0.630	0.772	0.023	0.000	0.121	0.751	11.7743	4.664

Drive Trace Indices

	ER	DR	EER	ASCR	IWR	RMSSE	Error Count	Error Time s	Violation Count	Violation Time s
Cycle	1.52%	0.18%	1.32%	2.41%	3.48%	0.34	0	0.00	0	0.00
Phase 1	1.34%	0.25%	1.08%	2.32%	3.43%	0.31	0	0.00	0	0.00
Phase 2	1.27%	0.12%	1.14%	2.20%	3.18%	0.37	0	0.00	0	0.00
Phase 3	2.01%	0.19%	1.78%	2.90%	3.98%	0.30	0	0.00	0	0.00

Quality Assurance

Execution log has 0 Errors, 0 Warnings

Analysis log has 14 Errors, 27 Warnings



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EDV.2 Exhaust Emissions Certification Test Data (CARB LEV III Fuel)

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Test Procedures and Underlying Information

Fuel Info

Fuel Type	Gasoline E10	Density (kg/l)	0.7530
Fuel Name	CARB LEV III GL0521GP10	HC Ratio	2.0200
Batch No.	GL0521GP10	OC Ratio	0.0420
Fuel Pump Number	0	C.W.F.	82.5200
RVP	7.3	N.H.V.	41.8050

Baq Analysis Results

	CO2 (g/km)	CO (g/km)	THC (g/km)	NOx (g/km)	HC+NOx (g/km)	CH4 (g/km)	N2O (g/km)	NMHC (g/km)	NMHC+NOx (g/km)	Fuel Cons. (l/100km)	Distance (km)
Total	286.753	3.213	0.178	0.576	0.754	0.027	0.000	0.153	0.730	12.7714	15.549
Sample 1	285.249	6.481	0.335	0.646	0.981	0.046	0.000	0.293	0.939	12.9508	4.666
Sample 2	301.532	1.377	0.103	0.497	0.600	0.016	0.000	0.089	0.586	13.2812	6.228
Sample 3	268.487	2.395	0.119	0.613	0.732	0.022	0.000	0.099	0.712	11.9095	4.655

Drive Trace Indices

	ER	DR	EER	ASCR	IWR	RMSSE	Error Count	Error Time s	Violation Count	Violation Time s
Cycle	1.23%	0.19%	1.03%	2.11%	3.06%	0.32	0	0.00	0	0.00
Phase 1	0.57%	0.24%	0.32%	1.53%	2.40%	0.31	0	0.00	0	0.00
Phase 2	1.85%	0.29%	1.53%	2.68%	3.80%	0.33	0	0.00	0	0.00
Phase 3	1.09%	0.00%	1.08%	1.63%	2.62%	0.31	0	0.00	0	0.00

Quality Assurance

Execution log has 0 Errors, 0 Warnings

Analysis log has 14 Errors, 28 Warnings



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Auxiliary Emissions Control Devices (AECDS)



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Auxiliary Emissions Control Devices (AECDS)



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Auxiliary Emissions Control Devices (AECs)



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Auxiliary Emissions Control Devices (AECDS)



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Auxiliary Emissions Control Devices (AECDS)



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Auxiliary Emissions Control Devices (AECDs)



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Auxiliary Emissions Control Devices (AECDs)



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Emissions Related Parts for new models - 49 state

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I		RZR Pro XP	RZR Pro XP Premium	RZR Pro XP Premium + Ride Command	RZR Pro XP Dynamix		
	Part Number					Part Manufacturer Name	
Electronic Control Units							
CDI	NA					Confidential Business Information	
ECU / ECM / PCM (Base ECU)	4015694						
ECU / ECM / PCM (Calibration)	4018030						
ECU / ECM / PCM (Assembly)	4018029						
IAC (Idle Air Control)	NA						
Aftertreatment Devices							
Catalyst(s)	1262710						
Secondary Air	NA						
Fuel Metering Components							
Carburetor	NA						
Fuel Injector(s)	2521914						
Fuel Pump	2522241						
Fuel Rail	2522004						
Fuel Pressure Regulator	Integral to Fuel Pump						
Throttle Body	1204455						
Throttle Body Adaptor	1205320						
Gas & Vapor Controls							
Crankcase Vapor Recovery	5416756						
Hose 1	NA						
Hose 2	NA						
Breather Box	NA						
Breather Valve	NA						
Liquid / Vapor Separator	NA						
Chg - Air Compression Comp							
Pressure Relief Valves	3022784						
Turbocharger	3023297						
Charged Air Cooler	1240930						
Sensors Associated w/above							
Cam Phase	NA						
Crank Position(s)	2411719						
EGT Sensor	NA						
Knock Sensor	2410369						
Oxygen Sensor(s)	2413317						
T-Map	2413095						
Water Temp Sensor(s)	4010644						
Intake Air Sensor(s)	2413095						
Throttle Position Sensor(s)	1204455						
Vehicle Speed Sensor(s)	4013908						
Pedal Position Sensor(s)	4017988						
Electronic Throttle Control Sensor(s)	1204455						
Air Induction System							
Intake Air Box	5455404						
Adaptor	NA						
Filter	7082211						
Air Cleaner	NA						
Exhaust							
Head Pipe	1263282						
Resonator / Silencer	1263379						
Ignition System							
Ignition Coils(s)	4015017						
Stator / Alternator	4015340, 4017285						
Spark Plug(s)	3023173						
Spark Plug Wire(s)	4017694, 4017695						
Fuel System							
Fuel Cap	2522069						
Fuel Lines	2521927						
Fuel Tanks	5454800						
Vent Line	2522082						



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Emissions Related Parts for New Models - 50 state

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I		RZR Pro XP (EVAP)	RZR Pro XP Premium (EVAP)	RZR Pro XP Premium + Ride Command (EVAP)	RZR Pro XP Dynamix (EVAP)
	Part Number				
Electronic Control Units					
CDI	NA				
ECU / ECM / PCM (Base ECU)	4015694				
ECU / ECM / PCM (Calibration)	4018273				
ECU / ECM / PCM (Assembly)	4018272				
IAC (Idle Air Control)	NA				
Aftertreatment Devices					
Catalyst(s)	1262710				
Secondary Air	NA				
Fuel Metering Components					
Carburetor	NA				
Fuel Injector(s)	2521914				
Fuel Pump	2522241				
Fuel Rail	2522004				
Fuel Pressure Regulator	Integral to Fuel Pump				
Throttle Body	1204455				
Throttle Body Adaptor	1205320				
Gas & Vapor Controls					
Crankcase Vapor Recovery	5416756				
Hose 1	NA				
Hose 2	NA				
Breather Box	NA				
Breather Valve	NA				
Liquid / Vapor Separator	NA				
Chg - Air Compression Comp					
Pressure Relief Valves	3022784				
Turbocharger	3023297				
Charged Air Cooler	1240930				
Sensors Associated w/above					
Cam Phase	NA				
Crank Position(s)	2411719				
EGT Sensor	NA				
Knock Sensor	2410369				
Oxygen Sensor(s)	2413317				
T-Map	2413095				
Water Temp Sensor(s)	4010644				
Intake Air Sensor(s)	2413095				
Throttle Position Sensor(s)	1204455				
Vehicle Speed Sensor(s)	4013908				
Pedal Position Sensor(s)	4017988				
Electronic Throttle Control Sensor(s)	1204455				

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Air Induction System					
Intake Air Box			5455404		
Adaptor			NA		
Filter			7082211		
Air Cleaner			NA		
Exhaust					
Head Pipe			1263282		
Resonator / Silencer			1263379		
Ignition System					
Ignition Coil(s)			4015017		
Stator / Alternator			4015340, 4017285		
Spark Plug(s)			3023173		
Spark Plug Wire(s)			4017694, 4017695		
Fuel System					
Fuel Cap			2522069		
Fuel Lines			2521927		
Fuel Tanks			5454800		
Vent Line			2521749		
EVAP					
Carbon Canister			2521786		
Purge Valves			2521964		
Mixing Chamber					
Lines					
ASM-LINE,PURGE TO TB			2521959		
ASM-LINE,TANK TO CANISTER					
ASM-LINE,VENT TO CANISTER					
ASM-LINE,CANISTER TO PURGE			2522081		
BRKT-MNT CANISTER,BLK			5267375-329		
BRKT-MNT PURGE VALVE,ECOAT			5268112-329		
BRKT-MOUNT RACK					
BRKT-PURGE TO TB LINE,MNT					
CLIP-TRIPLE DOUBLE			7082454		
ASM-THROTTLE BODY,DUAL-EVAP					
HARNESS					
FILTER-CANISTER VENT			2521750		
Fuel Tank w/pump			2522240		
CAP-GAS TANK			2522069		
Fuel Line Assembly			2521927		
Electronic Controls (ECU)			4018272		
Purge Valves					
Intake Manifold, EVAP			1206038		

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Updated Emissions Related Parts for current certified vehicles

Model	Calibration - Old Part Number	Calibration - New Part Number
RZR XP Turbo Evap	4018314	4018789
RZR XP 4 Turbo Evap	4018316	4018791
RZR XP Turbo S Evap	4018351	4018785
RZR XP 4 Turbo S Evap	4018353	4018787

Model	ECU Programmed- Old Part Number	ECU Programmed - New Part Number
RZR XP Turbo Evap	4018313	4018788
RZR XP 4 Turbo Evap	4018315	4018790
RZR XP Turbo S Evap	4018350	4018784
RZR XP 4 Turbo S Evap	4018352	4018786



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Evaporative Application for Certification
System Model A2B
EVAP Family LPOLU0062APC

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	Mr. Alan Leung California Air Resources Board Emissions Compliance Automotive Regulations and Science Division 9480 Telstar Avenue Ste # 4 El Monte, CA 91731
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, the EPA regulations in Part 2 of Title 40 of the Code of Federal Regulations, and the CARB regulations in 13 CCR 91000-91022.	

Polaris requests NEW certification for the model year 2020 EVAP System Model A2B in the Evaporative Family LPOLU0062APC. The current list of vehicles covered by this evaporative emissions family are shown below, with the new vehicle models being added with this submission shown in **blue font**. This LPOLU0062APC family is a new Evaporative Emissions Family to the Engine Family LPOLX.924PFC in addition to EVAP family LPOLU0040APC.

The RZR Pro XP models are equipped with a larger 62 gram working capacity canister which required a new EVAP family.

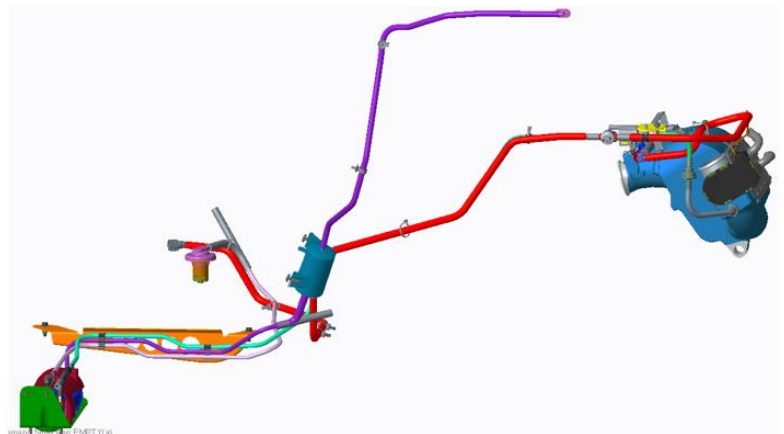
There is new test data submitted with this application specific to the LPOLU0062APC EVAP family.

Exhaust Engine Family	Prior 50-State Models w/ Evap	Models Being Added in This Submission
LPOLX.924PFC	None (new evap family)	RZR Pro XP RZR Pro XP Premium RZR Pro XP Premium Ride Command RZR PRO XP Platinum

Please call Brad Bahneman at (651) 408-7763 or me at (651) 408-6301 if you have any questions regarding this application.

Sincerely,

Michal Zieba, Product Compliance
Polaris Industries Inc.
7290 East Viking Blvd
Wyoming, MN 55092
michal.zieba@polaris.com





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Technical Description Information



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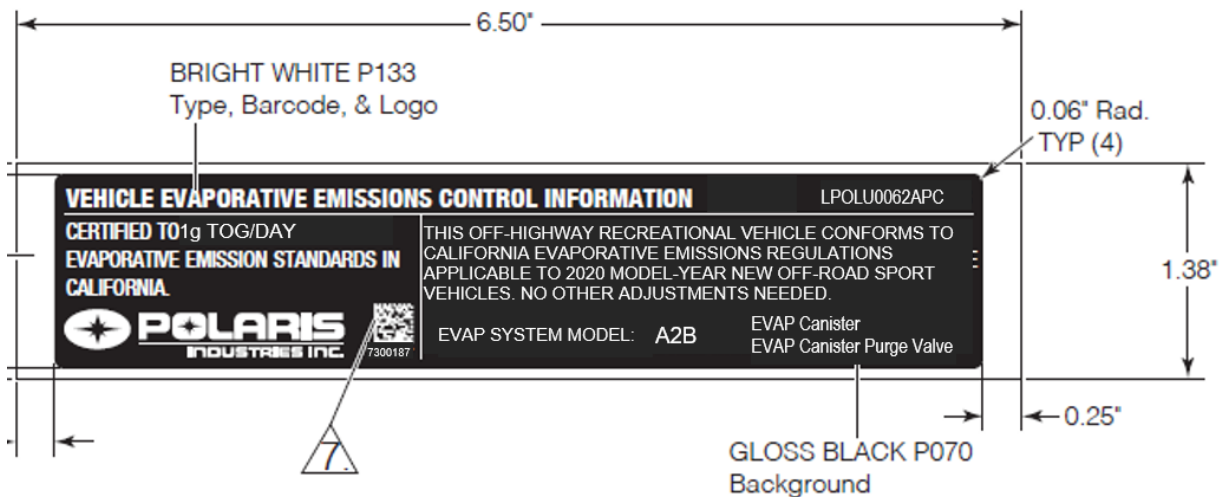
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13 CCR 2419.4 (b) (4)

(B), (G) Emissions Control Label

The VECI label(s) for the exhaust emission families served by EVAP family LPOLU0062APC are included in the corresponding exhaust emissions application.

The separate EVAP label below for evaporative emissions family LPOLU0062APC was designed specifically to meet the requirements of 13 CCR 2419.4 (b) (4).



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13 CCR 2418(a)(1)(A)

(I) EVAP Emissions Test Data - Demonstration of Compliance with Diurnal Standards

Polaris Test Report 61740

Test Results

VVVT SHED
WEMI

----- TEST ID -----	
REPORT FILENAME (TEST ID.TXT)	1505140639.txt
DATALOG FILENAME (TEST ID.CSV)	1505140639.csv

----- TEST RESULTS -----	
Test Name: EPA - 72HR 72-96-72	
MAX Error Value: 0	
THC Rise / Test: 0.457 gm	
THC Max Phase Rise: 0.177 gm	THC incl Ethanol Adjustment factor (1.24) = 0.219 g/24hr
CH4 Rise / Test: 0.000 gm	
CH4 Max Phase Rise: 0.000 gm	
Engine Off Time not Required	

----- TEST TIME -----	
START DATE	5/14/2015
START TIME (AT DOOR SEAL)	6:39:46
END DATE	5/17/2015
END TIME (AFTER FINAL SAMPLE)	6:41:44
TEST LENGTH	0072:01:58

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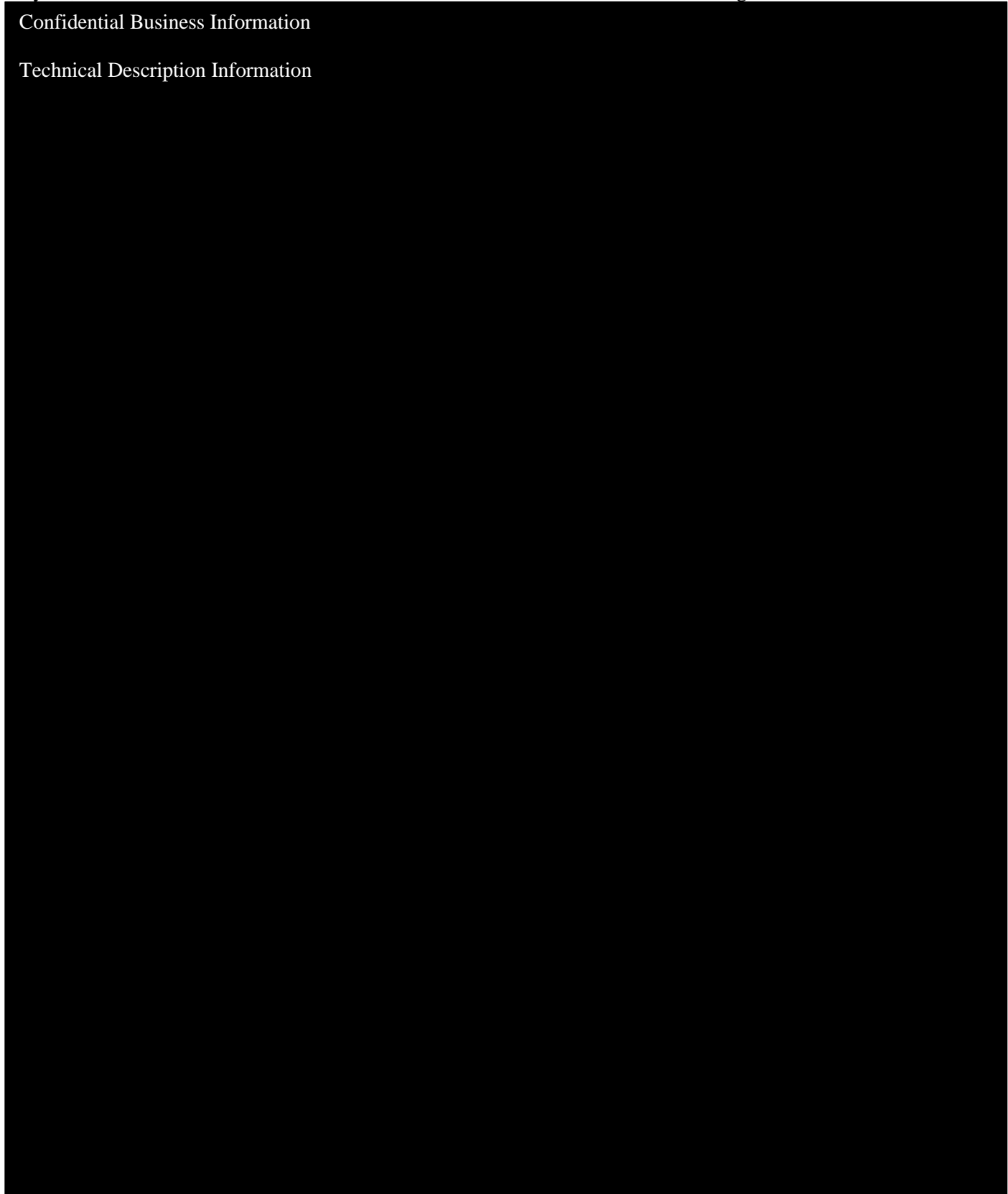
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REV NO: 20190403F01

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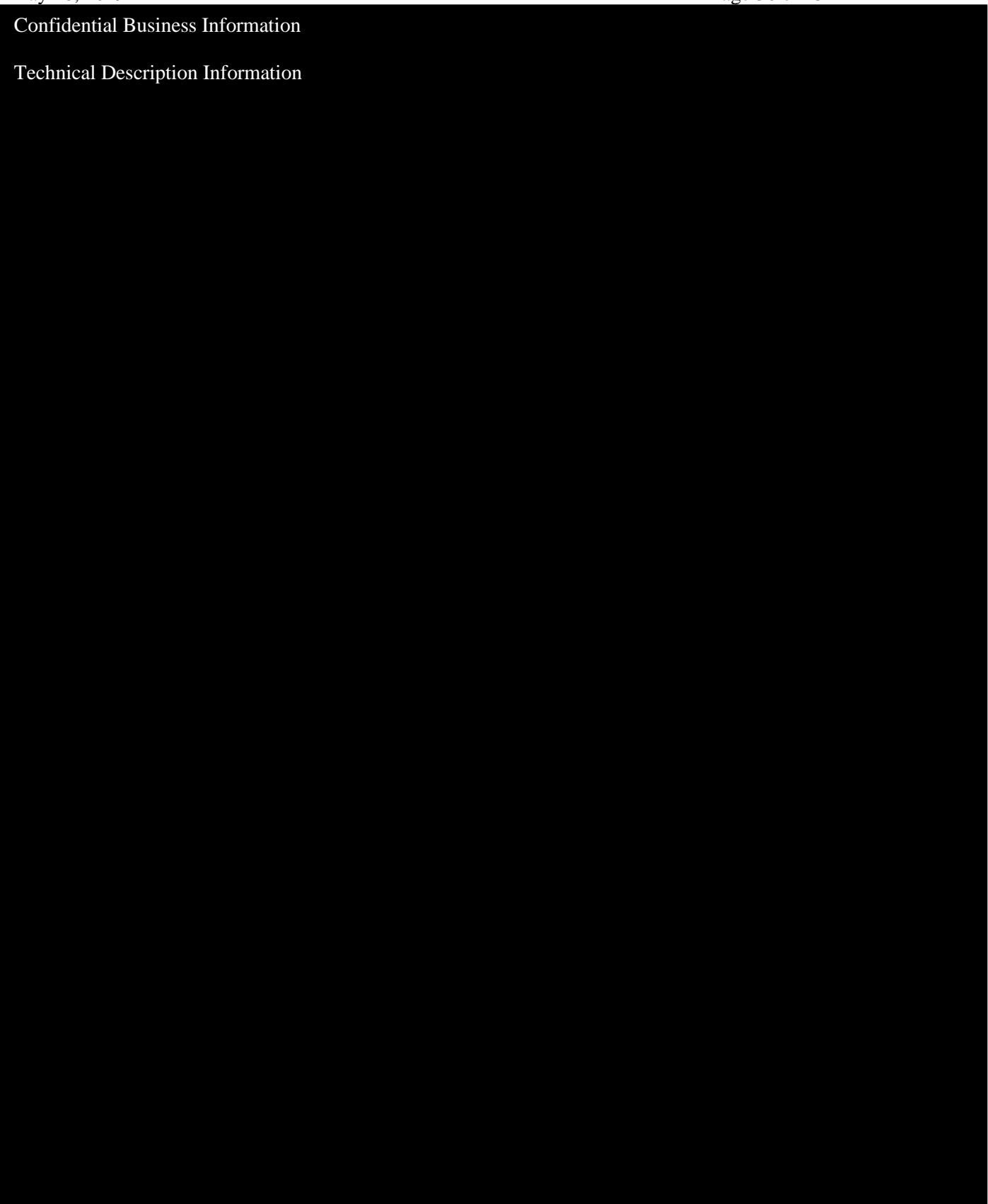
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TEST RESULTS

The following test results were recorded for 2800-01 with the Polaris Inc. Rogue Viper Tank System:

Pressure/Vacuum Test

The Pressure/Vacuum Test was performed on 1/7/2019.

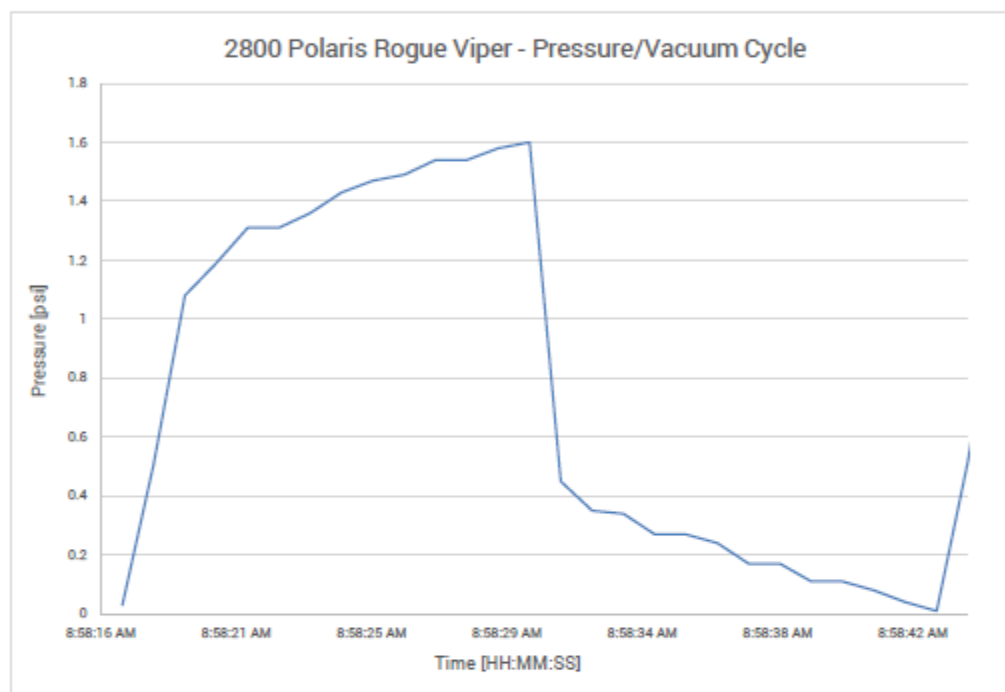


Figure 1. Example of one (1) cycle of the Pressure/Vacuum Test on the fuel tank.

Accelerated System Soak

The Polaris Rogue Viper undergone the Accelerated System Soak for the following time period:

Accelerated System Soak – Polaris Rogue Viper	
Date Start	1/8/2019
Date End	3/20/2019
Time in Soak	71 Days
Soak Temperature	105°F ± 2°F



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Carbon Canister – Thermal Exposure

For thermal cycling, the carbon canister was subject to at least one hundred (100) cycles of the temperature profile described in TP-933 Section 4.1.1.

Carbon Canister Thermal Exposure – Polaris Rogue Viper	
Date Start	1/9/2019
Date End	1/15/2019
Cycle Count	100

Slosh Test

The Polaris Rogue Viper performed the Slosh Test and produced the following results:

Slosh Test – Polaris Rogue Viper	
Date Start	3/22/2019
Date End	3/28/2019
Average Acceleration [g]	0.263 g
Average Frequency [Hz]	2.01 Hz
Duration [Hr]	142.7 Hr
Cycle Count	1,031,670

Carbon Canister – Vibration Test

The Polaris Rogue Viper performed the Carbon Canister – Vibration Test:

Carbon Canister Vibration Test – Polaris Rogue Viper	
Date Start	3/28/2019
Average Acceleration [g]	4.51 g
Average Frequency [Hz]	60.00 Hz
Duration [Hr]	46.5 Hr
Cycle Count	10,036,025

Carbon Canister Protection – Tip Test

The Polaris Rogue Viper performed the Carbon Canister Protection– Tip Test:

Carbon Canister Protection Tip Test – Polaris Rogue Viper			
Date Start	Test Mode	Mass Before Tip [g]	Mass After Tip [g]
4/3/2019	Side Tilt (Driver)	807.99	807.96
4/3/2019	Side Tilt (Passenger)	807.96	807.96
4/3/2019	Forward Tilt	807.96	807.94
4/3/2019	Backward Tilt	807.94	807.99



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Verify Data – A2B

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EO # U-M-
CARB Use Only.

Evaporative Family Description (A2B System)				
Manufacturer	<u>Polaris Industries</u>		Engine Family	<u>LPOLX.924PFC</u>
Model Year	2020		Evaporative Family	<u>LPOLU0062APC</u>
Manufacturer Size (Check One)	<u>Large</u> <input checked="" type="checkbox"/>	<u>Small</u> <input type="checkbox"/>		
Advanced Fuel System Credits	<u>Yes</u> <input type="checkbox"/>	<u>No</u> <input checked="" type="checkbox"/>		
Compliance Option (Check One)	<u>72-Hr. Diurnal</u> <input checked="" type="checkbox"/>	<u>24-Hr. Diurnal</u> <input type="checkbox"/>	Certify by Design Using Mfr.'s Data <input type="checkbox"/>	Certify by Design Reference CARB <input type="checkbox"/>
Durability Basis (Check One)	<u>UL Vehicle</u> <input checked="" type="checkbox"/>	<u>DF</u> <input type="checkbox"/>		

Emission Data Vehicle (EDV)					
Engine Family	<u>LPOLX.924PFC</u>	Evaporative Family	<u>LPOLU0062APC</u>	EDV Model Year	<u>2020</u>
Fuel System	Carburetor <input type="checkbox"/> MFI <input type="checkbox"/>	TBI <input type="checkbox"/> SFI <input checked="" type="checkbox"/>	DFI <input type="checkbox"/>	Other	<input type="checkbox"/>
Canister	Volume (cc) <u>1200</u>	W/C (grams) <u>59.58</u>	N/A		
Purge Valve	<u>Yes</u> <input checked="" type="checkbox"/>	<u>No</u> <input type="checkbox"/>			
Pressure Vent Valve	<u>Yes</u> <input type="checkbox"/>	<u>No</u> <input checked="" type="checkbox"/>			

Durability Data Vehicle (DDV)					
Engine Family	<u>LPOLX.924PFC</u>	Evaporative Family		DDV Model Year	<u>2020</u>
Fuel System	Carburetor <input type="checkbox"/> MFI <input type="checkbox"/>	TBI <input type="checkbox"/> SFI <input checked="" type="checkbox"/>	DFI <input type="checkbox"/>	Other	<input type="checkbox"/>
Canister	Volume (cc) <u>1200</u>	W/C (grams) <u>59.58</u>			
Purge Valve	<u>Yes</u> <input checked="" type="checkbox"/>	<u>No</u> <input type="checkbox"/>			
Pressure Vent Valve	<u>Yes</u> <input type="checkbox"/>	<u>No</u> <input checked="" type="checkbox"/>			

72-Hour Diurnal Test	
CERT (TOG/day)	<u>0.22</u>
STD (TOG/day)	<u>1</u>
EFEL	<u>n.a.</u>
DF	<u>n.a.</u>
Pass Fuel Leakage Tip Test?	<u>Yes</u> <input checked="" type="checkbox"/> <u>No</u> <input type="checkbox"/>

24-Hour Diurnal Test					
CERT (TOG/day)	<u> </u>				
STD (TOG/day)	<u> </u>				
EFEL	<u> </u>				
DF	<u> </u>				
Vented Emissions Compliance. 6.4.2.5. a)	NVL \geq V _{total} ?	Yes	<u> </u>	No	<u> </u>
(Select One) 6.4.2.5. b)	Use 2 psig PVV?	Yes	<u> </u>	No	<u> </u>
6.4.2.5. c)	No PVV release?	Yes	<u> </u>	No	<u> </u>
Pass Fuel Leakage Tip Test?	<u>Yes</u> <input type="checkbox"/> <u>No</u> <input type="checkbox"/>				

SVM Certify By Design			
	Fuel Tank Perm.	Fuel Hose Perm.	Canister Working Capacity per Fuel Tank Volume
CARB Component EO Number	<u> </u>	<u> </u>	<u> </u>
CERT	<u> </u>	<u> </u>	<u> </u>
STD	<u> </u>	<u> </u>	<u> </u>
Pass Fuel Leakage Tip Test?	<u>Yes</u> <input type="checkbox"/> <u>No</u> <input type="checkbox"/>		

ABBREVIATIONS: CARB=California Air Resources Board; EO=Executive Order; TOG=total organic gases; CERT=certification level; STD=certification standard; EFEL=evaporative family emission limit; DF=deterioration factor; UL=useful life; EDV=emission data vehicle; DDV=durability data vehicle; TBI=throttle body fuel injection; MFI=multiport fuel injection; SFI=sequential multiport fuel injection; DFI=direct gasoline fuel injection; psig=pounds per square inch - gauge; W/C=canister gasoline working capacity; NVL=normalized vapor load.

Issued: 2017-06-06



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Evaporative Application for Certification
System Model A1B
EVAP Family LPOLU0040APC

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	Mr. Alan Leung California Air Resources Board Emissions Compliance Automotive Regulations and Science Division 9480 Telstar Avenue Ste # 4 El Monte, CA 91731
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, the EPA regulations in Part 2 of Title 40 of the Code of Federal Regulations, and the CARB regulations in 13 CCR 91000-91022.	

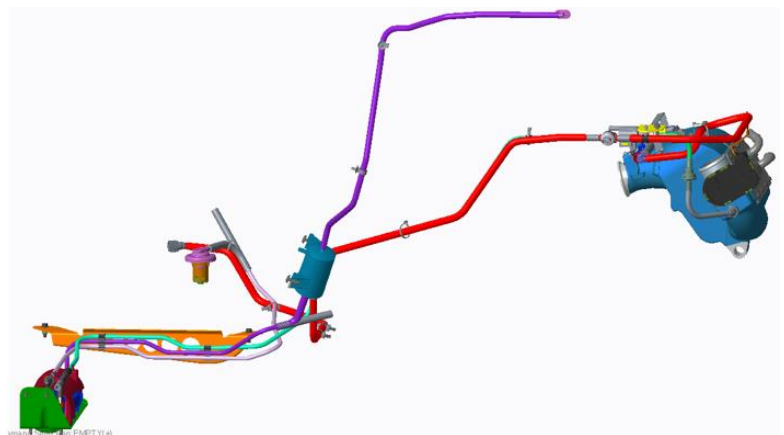
Polaris requests certification for the model year 2020 EVAP System Model A1B in the Evaporative Family LPOLU0040APC. The current list of vehicles covered by this evaporative emissions family are shown below, with the new vehicle models being added with this submission shown in red font.

Exhaust Engine Family	Prior 50-State Models w/ Evap	Models Being Added in This Submission
LPOLX.924PFC	RZR XP TURBO EPS RZR XP 4 TURBO EPS RZR XP EPS TURBO S RZR XP 4 EPS TURBO S RZR XP EPS TURBO S Velocity RZR XP 4 EPS TURBO S Velocity	No new added models

Please call me at (651) 408-6301 if you have any questions regarding this application.

Sincerely,

Michal Zieba, Product Compliance
Polaris Industries Inc.
7290 East Viking Blvd
Wyoming, MN 55092
michal.zieba@polaris.com





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Verify Data – A1B

EO # U-M-
CARB Use Only.

Evaporative Family Description (A1B System)					
Manufacturer	<u>Polaris Industries</u>		Engine Family	<u>LPOLX.924PFC</u>	
Model Year	2020		Evaporative Family	<u>LPOLU0040APC</u>	
Manufacturer Size (Check One)	Large <input checked="" type="checkbox"/>	Small <input type="checkbox"/>			
Advanced Fuel System Credits	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Compliance Option (Check One)	72-Hr. Diurnal <input checked="" type="checkbox"/>	24-Hr. Diurnal <input type="checkbox"/>	Certify by Design Using Mfr.'s Data <input type="checkbox"/>	Certify by Design Reference CARB <input type="checkbox"/>	
Durability Basis (Check One)	UL Vehicle <input checked="" type="checkbox"/>	DF <input type="checkbox"/>			

Emission Data Vehicle (EDV)					
Engine Family	<u>KPOLX.924PFC</u>	Evaporative Family	<u>KPOLU0040APC</u>	EDV Model Year	<u>2019</u>
Fuel System	Carburetor <input type="checkbox"/> MFI <input type="checkbox"/>	TBI <input type="checkbox"/> SFI <input checked="" type="checkbox"/>	DFI <input type="checkbox"/>	Other <input type="checkbox"/>	
Canister	Volume (cc) <u>746</u>	W/C (grams) <u>44.8</u>	N/A <input type="checkbox"/>		
Purge Valve	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Pressure Vent Valve	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Durability Data Vehicle (DDV)					
Engine Family	<u>KPOLX.924PF2</u>	Evaporative Family	<u>KPOLU0040APC</u>	DDV Model Year	<u>2019</u>
Fuel System	Carburetor <input type="checkbox"/> MFI <input type="checkbox"/>	TBI <input type="checkbox"/> SFI <input checked="" type="checkbox"/>	DFI <input type="checkbox"/>	Other <input type="checkbox"/>	
Canister	Volume (cc) <u>746</u>	W/C (grams) <u>44.8</u>			
Purge Valve	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Pressure Vent Valve	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

72-Hour Diurnal Test		
CERT (TOG/day)	<u>0.46</u>	
STD (TOG/day)	<u>1</u>	
EFEL	<u>0.6</u>	
DF	<u>n.a.</u>	
Pass Fuel Leakage Tip Test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

24-Hour Diurnal Test		
CERT (TOG/day)	<u> </u>	
STD (TOG/day)	<u> </u>	
EFEL	<u> </u>	
DF	<u> </u>	
Vented Emissions Compliance. 6.4.2.5. a)	NVL \geq V _{total} ?	Yes <input type="checkbox"/> No <input type="checkbox"/>
(Select One) 6.4.2.5. b)	Use 2 psig PVV?	Yes <input type="checkbox"/> No <input type="checkbox"/>
6.4.2.5. c)	No PVV release?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Pass Fuel Leakage Tip Test?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

SVM Certify By Design		
	Fuel Tank Perm.	Fuel Hose Perm.
CARB Component EO Number	<u> </u>	Canister Working Capacity per Fuel Tank Volume <u> </u>
CERT	<u> </u>	<u> </u>
STD	<u> </u>	<u> </u>
Pass Fuel Leakage Tip Test?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

ABBREVIATIONS: CARB=California Air Resources Board; EO=Executive Order; TOG=total organic gases; CERT=certification level; STD=certification standard; EFEL=evaporative family emission limit; DF=deterioration factor; UL=useful life; EDV=emission data vehicle; DDV=durability data vehicle; TBI=throttle body fuel injection; MFI=multiport fuel injection; SFI=sequential multiport fuel injection; DFI=direct gasoline fuel injection; psig=pounds per square inch - gauge; W/C=canister gasoline working capacity; NVL=normalized vapor load.
Issued: 2017-06-06



February 8, 2018

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**Carry Over Application
Off Road Vehicle Application for Certification
LPOLX.924PFC**

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	Mr. Alan Leung California Air Resources Board Emissions Compliance Automotive Regulations and Science Division 9480 Telstar Avenue Ste # 4 El Monte, CA 91731
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, and the Agency's regulations in Part 2 of Title 40 of the Code of Federal Regulations.	

Polaris requests certification for the model year 2020 models in engine family LPOLX.924PFC described herein.

- RZR XP TURBO EPS (49-State Model)
- RZR XP 4 TURBO EPS (49-State Model)
- RZR XP TURBO S (49-State Model)
- RZR XP 4 TURBO S (49-State Model)
- RZR XP TURBO S VELOCITY (49-State Model)
- RZR XP 4 TURBO S VELOCITY (49-State Model)
- RZR XP TURBO EPS (50 State - CARB Evaporative emissions compliant model)
- RZR XP 4 TURBO EPS (50 State - CARB Evaporative emissions compliant model)
- RZR XP EPS TURBO S (50 State - CARB Evaporative emissions compliant model)
- RZR XP 4 EPS TURBO S (50 State - CARB Evaporative emissions compliant model)
- RZR XP TURBO S VELOCITY (50 State - CARB Evaporative emissions compliant model)
- RZR XP 4 TURBO S VELOCITY (50 State - CARB Evaporative emissions compliant model)

These models are carry over and were previously certified in the JPOLX.924PFC family.
No new worst case data is included with this application.

This information can become public information now.

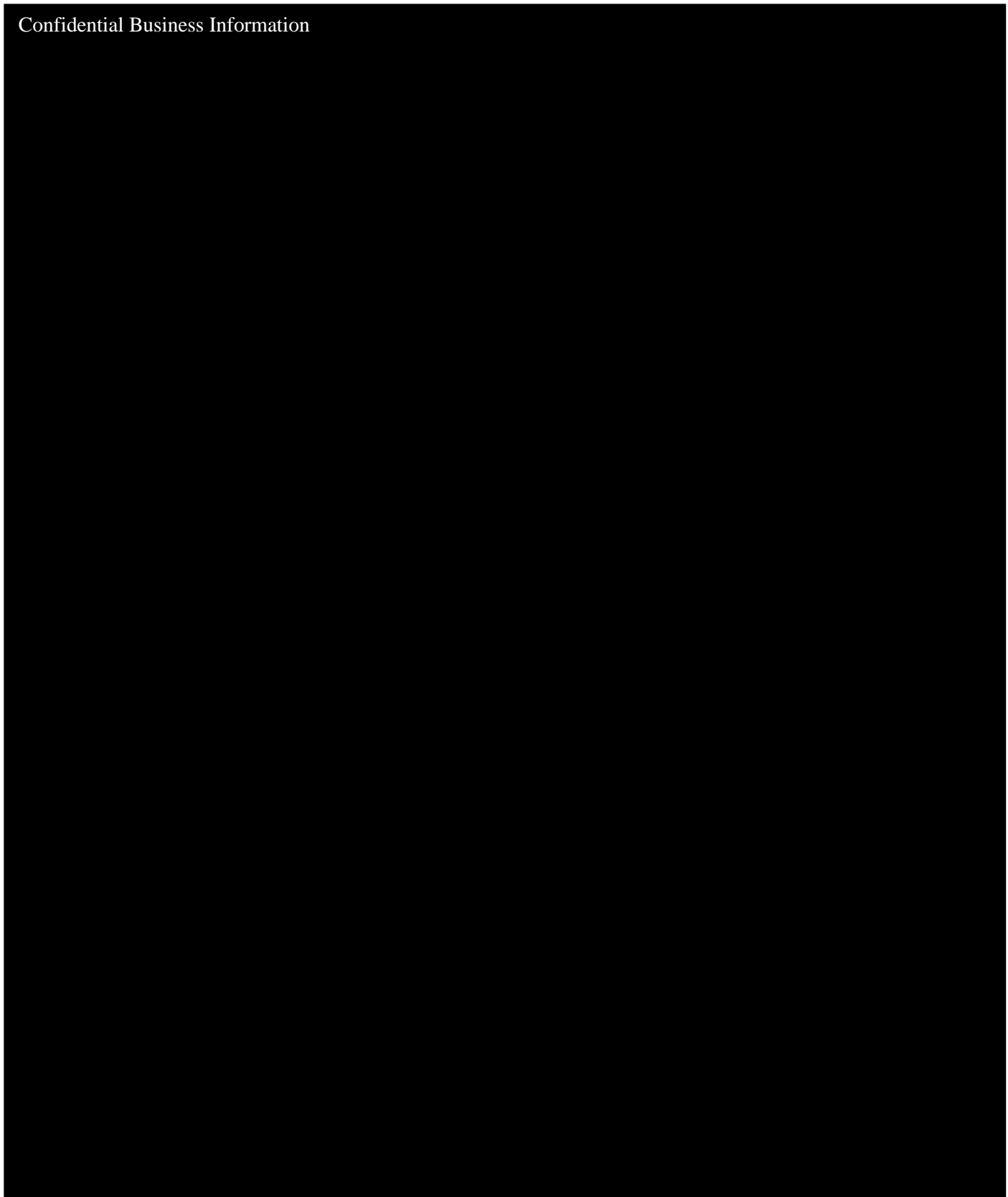
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Sincerely,

Michal Zieba, Product Compliance
Polaris Industries Inc.
7290 East Viking Blvd
Wyoming, MN 55092
michal.zieba@polaris.com



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Summary Information (Verify system checklist)

EPA Manufacturer Code		POL
Model Year *		2019
Engine Family *		LPOLX.924PFC
Introduction into Commerce Date		Confidential Business Information
1	Is this the first certificate ever issued to this company? *	No
2	Is this an ABT engine family? * The ABT plan was included in the common section of the application for certification or the engine family-specific section of the application. *	No
3	All of the test vehicle(s)/engine(s) passed all applicable exhaust and evaporative emission standards. *	Yes
4.1	If this is a California-only engine family, has a California ARB executive order been issued yet? * If yes, what is the executive order number? *	N/A
4.2	If this is a 50-State engine family, have you received notifications that your Certification Summary Information (CSI) application was accepted by EPA's Verify system and CARB's E-Cert system? *	N/A
5	All the vehicles/engines covered by this application meet the appropriate emission standards (including any Family Emission Limits if applicable). *	Yes
6	All production vehicles/engines will be within the scope of this application with respect to materials, engine design, drivetrain, fuel system, emission control system strategy and components, exhaust after-treatment devices,	Yes



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	vehicle mass, and any other device or component that can reasonably be expected to influence exhaust emissions. *	
7	The required certification fee has been paid. *	Yes
8	All required data and application document(s) have been submitted to EPA. *	Yes
9	The vehicles/engines covered by this application are free of defeat devices and strategies. *	Yes

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Contacts/Importers/Agents of Service/Ports








Types of Vehicles

	MASS CLASS INFORMATION*	EPA Classification	
		NAME	TYPE
	Curb Mass: 729kg	RZR XP TURBO EPS Verify #1	ATV B
	Curb Mass: 825kg	RZR XP 4 TURBO EPS Verify #2	ATV B

*The curb mass values in this table reflect the worst case factory configuration. The values in CSI.7 include additional accessory weight.

	MASS CLASS INFORMATION*	EPA Classification		California Classification	
		NAME	TYPE	NAME	TYPE
	Curb Mass: 732 California Sales: 555	RZR XP TURBO EPS (50 State Model) Verify #3	ATV B	RZR XP TURBO EPS (50 State Model) Verify #4	ORSV
	Curb Mass: 828 California Sales: 880	RZR XP 4 TURBO EPS (50 State Model) Verify #5	ATV B	RZR XP 4 TURBO EPS (50 State Model) Verify #6	ORSV
	Curb Mass: 846	RZR XP EPS TURBO S (49 State Model) Verify #7	ATV B	N/A	N/A
	Curb Mass: 849 California Sales: 360	RZR XP EPS TURBO S (50 State Model) Verify #8	ATV B	RZR XP EPS TURBO S (50 State Model) Verify #9	ORSV
	Curb Mass: 952	RZR XP 4 EPS TURBO S (49 State Model) Verify #10	ATV B	N/A	N/A



	Curb Mass: 955 California Sales: 555	RZR XP 4 EPS TURBO S (50 State Model) Verify #11	ATV B	RZR XP 4 EPS TURBO S (50 State Model) Verify #12	ORSV
	Curb Mass: 821 kg	RZR XP TURBO S VELOCITY (49 State Model) Verify #13	ATV B	N/A	N/A
	Curb Mass: 826 kg California Sales: 270	RZR XP TURBO S VELOCITY (50 State Model) Verify #14	ATV B	RZR XP EPS TURBO S VELOCITY (50 State Model) Verify #15	ORSV
	Curb Mass: 920 kg	RZR XP 4 TURBO S VELOCITY (49 State Model) Verify #16	ATV B	N/A	N/A
	Curb Mass: 925 kg California Sales: 160	RZR XP 4 TURBO S VELOCITY (50 State Model) Verify #17	ATV B	RZR XP 4 EPS TURBO S VELOCITY (50 State Model) Verify #18	ORSV

Verify Code Name

- CSI.5, EDV1 Model Name: Code 1 = RZR 1000 XP TURBO
- CSI.5, EDV2 Model Name: Code 2 = RZR XP 4 TURBO S

Vehicle Dimensions

Vehicle	Length	Width	Height	Track Width	Wheelbase
RZR XP TURBO EPS	119"	64"	73.75"	54.4"	90"
RZR XP 4 TURBO EPS	146"	64"	73.75"	54.4"	117"
RZR XP TURBO S	122"	72"	75"	63.5"	90"
RZR XP 4 TURBO S	149"	72"	76.5"	63.5"	117"
RZR XP TURBO S VELOCITY	122"	72"	75"	63.5"	90"
RZR XP 4 TURBO S VELOCITY	149"	72"	76.5"	63.5"	117"

Adjustable Parameters

Per 40CFR 1051.115(c).

Seatbelt Interlock – This vehicle is equipped with seatbelts that have a manually operated buckle. During operation with the driver seatbelt buckled, the vehicle speed is limited to the normal maximum speed for safe operation. When the driver's seatbelt is unbuckled, the vehicle speed is limited to 15 mph.

SpeedKey Accessory – The Speed Key Accessory is not offered for the RZR TURBO models.

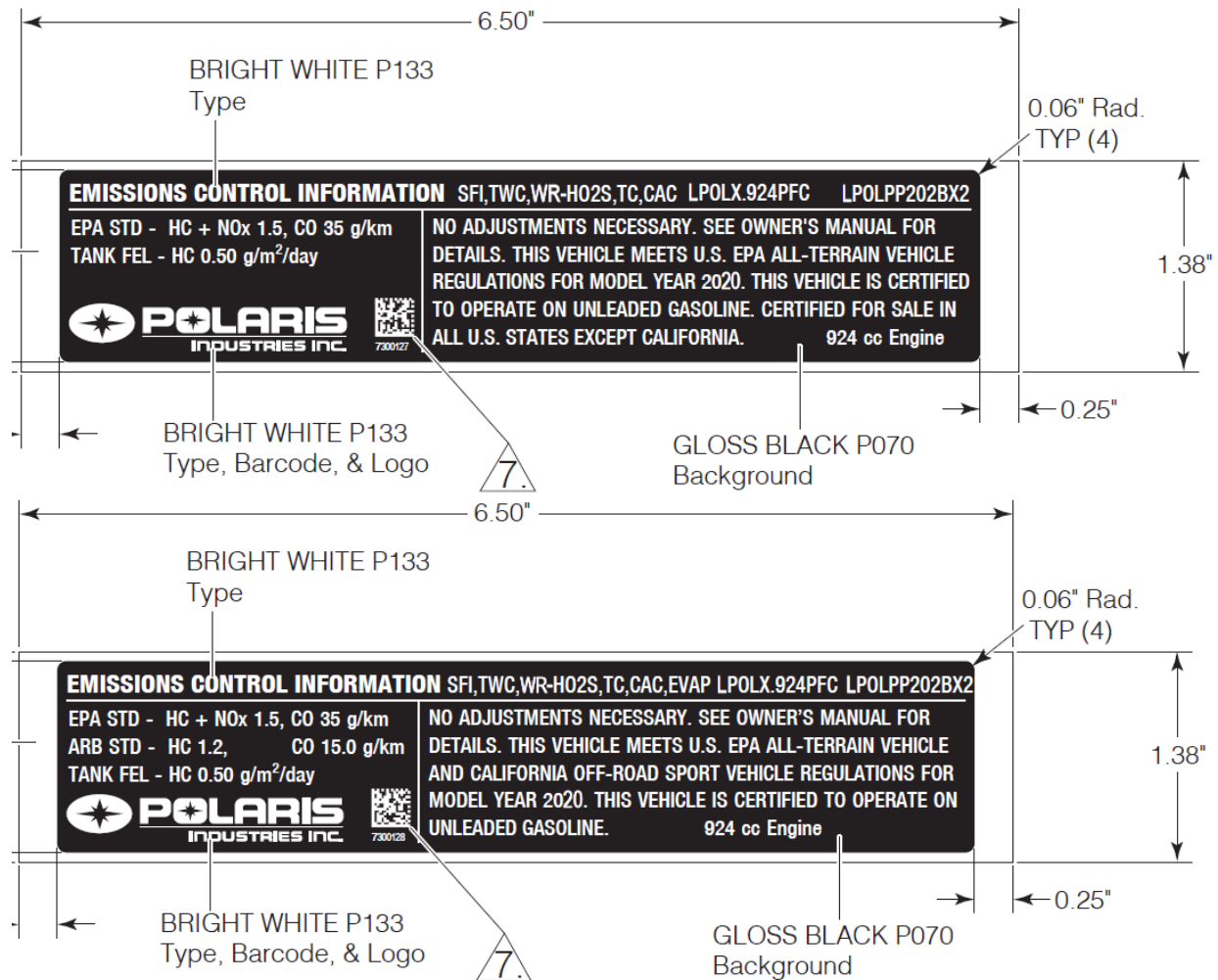


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Test Procedures and Underlying Information

VECI - Emissions Control Labels

Engine Family LPOLX.924PFC consists of an 924cc 4-stroke engine only.



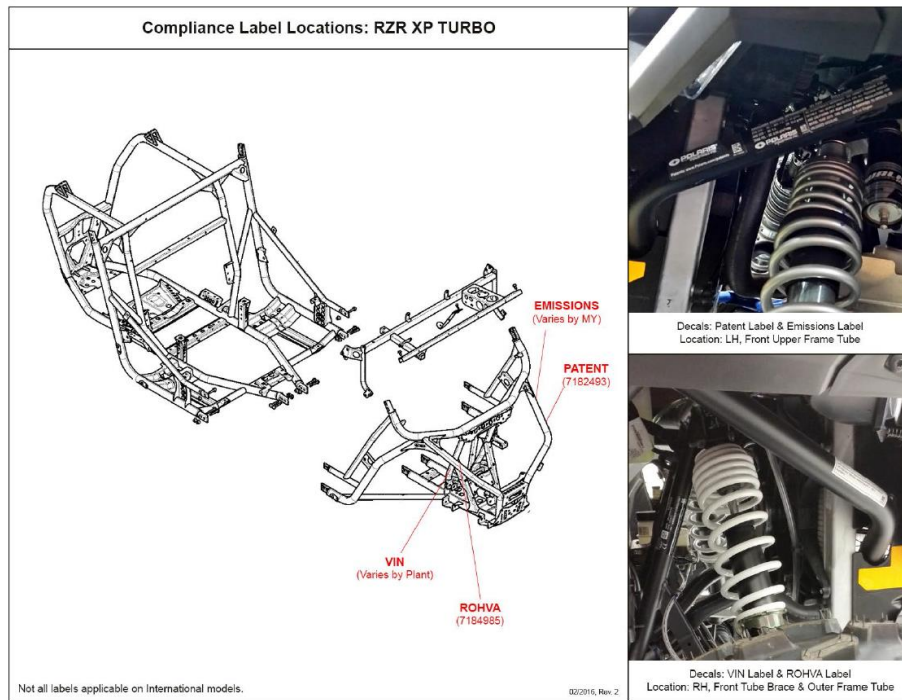
VECI - Label Location

RZR XP TURBO EPS - The VECI label is located in the left front wheel well as shown in the picture below.

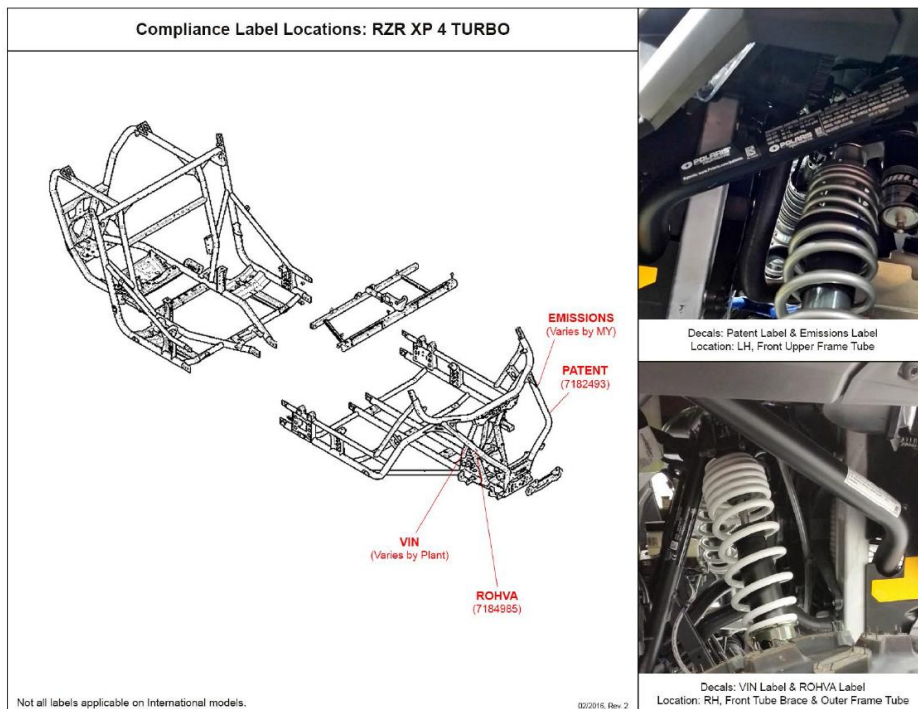


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RZR XP 4 TURBO EPS

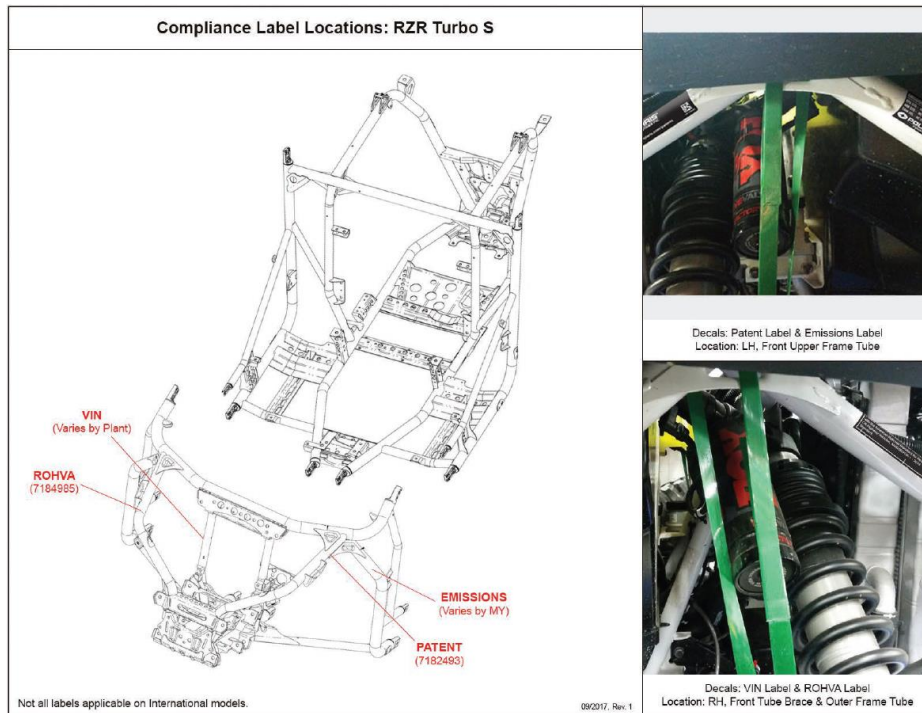


RZR XP EPS TURBO S



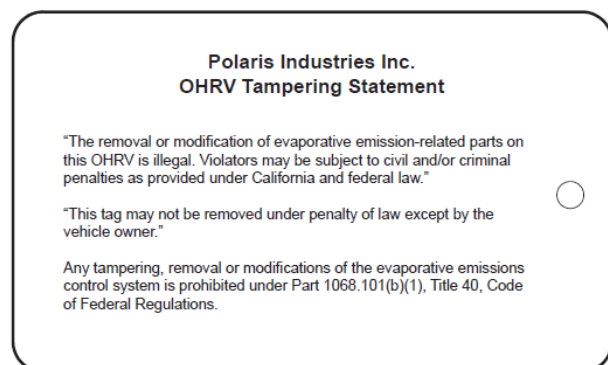
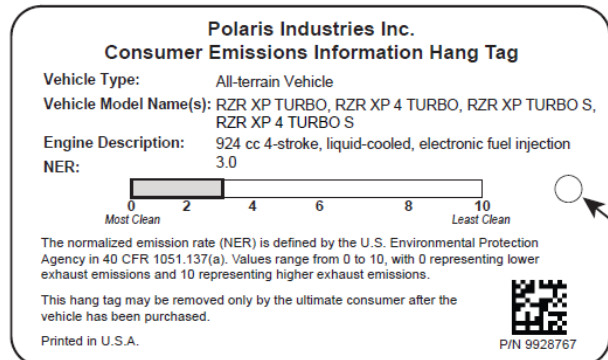
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Consumer Hangtags

The hangtag will be located on the steering wheel or transmission lever.





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Test Procedures and Underlying Information

Fuel Info

Fuel Type	Gasoline	Density (kg/l)	0.7420
Fuel Name	EPA Tier II GB2321GP10	HC Ratio	1.8950
Batch No.	GB2321GP10	OC Ratio	0.0000
Fuel Pump Number	PFA-245 11518 2521963 115180002	C.W.F.	86.2800
RVP	9	N.H.V.	43.2600

<u>Bag Analysis Results</u>	THC (g/km)	CO (g/km)	NOx (g/km)	CO2 (g/km)	HC+NOx (g/km)	CH4 (g/km)	NMHC (g/km)	N2O (g/km)	NMHC+NOx (g/km)	PN (#/km)	Fuel Cons. (l/100km)	Distance (km)
Weighted Total	0.118	1.869	0.555	290.781	0.673	0.016	0.104	0.005	0.659		12.6169	10.914
Sample 1	0.229	4.856	0.648	290.807	0.877	0.031	0.201	0.014	0.848		12.8345	4.680
Sample 2	0.087	0.954	0.498	298.675	0.585	0.011	0.077	0.003	0.575		12.8896	6.244
Sample 3	0.107	1.760	0.618	272.227	0.724	0.015	0.093	0.005	0.711		11.8120	4.663

<u>EPA 75 Class I MC</u>	CO	HC	HC+NOX
Limit	15.00	1.20	1.50
DF	1	1	1
DF Result	1.87	0.12	0.67
% Limit	12.46%	9.83%	44.86%
Status	PASS	PASS	PASS

<u>Post Test Limit Checks</u>	Checked Parameter	Unit	Average	Minimum	Maximum	Lo Limit	Hi Limit	Status
Cell Temperature	Continuous/Cell Temperature	°C	25	25	26	20	30	PASS

<u>Coastdown Terms</u>	Inertia (kg)	A (N)	B (N/(km/h))	C (N/(km/h)²)	Rolls Configuration Wheelbase (mm)
Dyno	1000	85.59	0	0.0357	
Highway	1000	85.59	0	0.0357	

<u>Drive Trace Indices</u>	ER	DR	EER	ASCR	IWR	RMSSE	Error Count	Error Time s	Violation Count	Violation Time s
Cycle	0.85%	0.45%	0.31%	1.56%	2.52%	0.39	0	0.00	0	0.00
Phase 1	1.43%	0.58%	0.84%	1.53%	2.73%	0.39				
Phase 2	0.68%	0.53%	0.14%	1.66%	2.49%	0.43				
Phase 3	0.49%	0.20%	0.29%	1.23%	2.42%	0.33				

Quality Assurance

Execution log has: 0 Errors, 0 Warnings
Analysis log has: 1 Errors, 6 Warnings

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Test Procedures and Underlying Information



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Adjustable Parameter Seat Belt Interloc Exhaust Emissions

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Test Procedures and Underlying Information

<u>Test Conditions</u>	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>					
PhaseStartTime	10:21:06	10:29:33	10:54:17					
Test Time (sec):	506.5	869.5	510.0					
Avg. Cell Temp.:(degC)	25.7	25.7	25.8					
Avg. CVS Flow Rate:(m³/min)	9.45	9.35	9.40					
CVS Volume (m³ 20degC)	79.79	135.49	79.89					
Dilution factor:	18.755	19.575	19.566					
Avg. CVS Pressure:(kPa)	98.12	98.13	98.12					
Avg. Pressure Across CFV:(kPa)	-15.52	-15.30	-15.40					
Avg. CVS Temperature:(degC)	28.29	34.59	31.38					
Bag Analysis Time (sec):	104.8	120.1	120.3					
Bag Fill Rate (L/min):	6 L/min	6 L/min	6 L/min					
Driver Out of Limits (sec):	299.2	452.9	298.2					
Distance (km)	2.559	4.137	2.556					
Distance Limit:	FAIL	FAIL	FAIL					
Crank Time (sec):	1.3		1.3					
Hold Time (sec):	0.0	0.0	0.0					
Barometer (kPa)	98.73	98.74	98.72					
Specific Humidity (gm/kg)	7.08	8.11	7.78					
Hum Corr Factor:	0.893	0.921	0.912					
<u>Bag Results</u>	<u>THC</u>	<u>LCO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>N2O</u>	
	(ppm)	(ppm)	(ppm)	(%)	(ppm)	(ppm)	(ppm)	
<u>Phase 1</u>								
Sample:	28.842	289.796	2.901	0.683	4.832	23.690	0.027	
Ambient:	2.736	0.730	0.004	0.041	2.016	0.587	0.295	
Net Concentration:	26.251	289.105	2.897	0.644	2.924	23.135	0.000	
<u>Phase 2</u>								
Sample:	8.790	88.518	2.737	0.675	3.022	5.569	0.152	
Ambient:	3.149	0.627	0.030	0.041	2.000	1.017	0.352	
Net Concentration:	5.802	87.923	2.709	0.635	1.123	4.605	0.000	
<u>Phase 3</u>								
Sample:	11.596	117.471	2.435	0.672	3.191	8.194	0.145	
Ambient:	2.906	0.591	0.010	0.041	2.009	0.764	0.377	
Net Concentration:	8.838	116.911	2.427	0.633	1.284	7.469	0.000	
<u>Mass Results (gram)</u>	<u>THC</u>	<u>LCO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>N2O</u>	<u>HC+NOx</u>
Phase 1	1.208	26.850	0.395	940.021	0.156	1.065	0.000	1.603
Phase 2	0.453	13.866	0.647	1575.603	0.102	0.360	0.000	1.100
Phase 3	0.407	10.872	0.338	925.713	0.068	0.344	0.000	0.746
Modal Mass Corr. (gram)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Modal Mass Corr. (gram)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Modal Mass Corr. (gram)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
<u>Mass Results(gm/km)</u>	<u>THC</u>	<u>LCO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>N2O</u>	<u>HC+NOx</u>
Phase 1	0.472	10.490	0.154	367.276	0.061	0.416	0.000	0.626
Phase 2	0.110	3.352	0.156	380.823	0.025	0.087	0.000	0.266
Phase 3	0.159	4.253	0.132	362.148	0.027	0.135	0.000	0.292
Weighted (Phase1,2,3)	0.180	4.721	0.151	374.531	0.031	0.151	0.000	0.331
<u>Fuel Economy (km/L)</u>								
Phase 1	6.098							



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Test Procedures and Underlying Information



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Aftertreatment Device Details



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Aftertreatment Device Details



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Aftertreatment Device Details



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Aftertreatment Device Details



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Auxiliary Emissions Control Devices (AECs)



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Auxiliary Emissions Control Devices (AECDS)



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Auxiliary Emissions Control Devices (AECDS)



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Auxiliary Emissions Control Devices (AECs)



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Technical Description Information



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Results: Continued

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Technical Description Information

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Technical Description Information

FINAL PERMEATION RESULTS		
	Area (m ²)	Permeation Rate (g/m ² /day)
Fuel Tank	0.680	0.30
Fuel Cap	N/A	N/A
TOTAL PERMEATION RATE		0.30



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Technical Description Information

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FINAL PERMEATION RESULTS		
	Area (m ²)	Permeation Rate (g/m ² /day)
Fuel Tank	0.680	0.40
Fuel Cap	N/A	N/A
TOTAL PERMEATION RATE		0.40



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FINAL PERMEATION RESULTS		
	Area (m ²)	Permeation Rate (g/m ² /day)
Fuel Tank	0.680	0.41
Fuel Cap	N/A	N/A
TOTAL PERMEATION RATE		0.41



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Technical Description Information



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Test Procedures and Underlying Information

RESULTS
Average Permeation Rate per SAEJ1737* (gram/m ² /day)
0
0
0
0
0
ANY SIGNIFICANT



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Test Procedures and Underlying Information

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Test Procedures and Underlying Information

RESULTS		
Test Temperature (°C)	5-day Average of the Permeation Rate (grams/m ² /day)	Technician Observations
+60	-0.1	THE AVERAGE PERMEATION RATE WAS DETERMINED FROM THE LAST FIVE (5) MEASUREMENTS
+60	-0.1	THE AVERAGE PERMEATION RATE WAS DETERMINED FROM THE LAST FIVE (5) MEASUREMENTS
+60	0.1	THE AVERAGE PERMEATION RATE WAS DETERMINED FROM THE LAST FIVE (5) MEASUREMENTS
+60	0.0	THE AVERAGE PERMEATION RATE WAS DETERMINED FROM THE LAST FIVE (5) MEASUREMENTS
+60	0.0	THE AVERAGE PERMEATION RATE WAS DETERMINED FROM THE LAST FIVE (5) MEASUREMENTS
EXTENDED FOR A TOTAL OF 24-DAYS TO ENSURE CONSISTENCY OF RESULTS (ESTABLISHED PERIOD WAS APPLIED).		

APPROVAL OF THE TECHNICAL MANAGER
NOT REPRODUCE IN BLACK AND WHITE
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Test Procedures and Underlying Information

Results: Continued

Fuel Hose Emissions Testing per SAE J1737 @ +60°C –

TEST DATE	RESULTS														
	DAILY HOSE + CANISTER WEIGHTS (GRAMS)					DAILY WEIGHT LOSS (GRAMS)					PERMEATION RATE (GRAMS/M ² /DAY)				
	5C664-01	5C664-02	5C664-03	5C664-04	5C664-05	5C664-01	5C664-02	5C664-03	5C664-04	5C664-05	5C664-01	5C664-02	5C664-03	5C664-04	5C664-05
12/15/15	386.82	397.04	402.04	394.18	391.38	-	-	-	-	-	-	-	-	-	-
12/16/15	381.84	392.21	397.15	389.22	386.84	-4.98	-4.83	-4.89	-4.96	-4.54	-300.19	-291.15	-294.77	-298.99	-273.67
12/17/15	381.71	391.95	396.99	389.09	386.61	-0.13	-0.26	-0.16	-0.13	-0.23	-7.84	-15.67	-9.64	-7.84	-13.86
12/18/15	381.66	391.90	396.95	389.06	386.52	-0.05	-0.05	-0.04	-0.03	-0.09	-3.01	-3.01	-2.41	-1.81	-5.43
12/19/15	381.68	391.89	396.92	389.05	386.58	0.02	-0.01	-0.03	-0.01	0.06	1.21	-0.60	-1.81	-0.60	3.62
12/20/15	381.66	391.89	396.93	389.05	386.54	-0.02	0.00	0.01	0.00	-0.04	-1.21	0.00	0.60	0.00	-2.41
12/21/15	381.65	391.88	396.93	389.04	386.51	-0.01	-0.01	0.00	-0.01	-0.03	-0.60	-0.60	0.00	-0.60	-1.81
12/22/15	381.66	391.87	396.92	389.05	386.50	0.01	-0.01	-0.01	0.01	-0.01	0.60	-0.60	-0.60	0.60	-0.60
12/23/15	381.67	391.88	396.93	389.06	386.51	0.01	0.01	0.01	0.01	0.01	0.60	0.60	0.60	0.60	0.60
12/24/15	381.67	391.88	396.92	389.04	386.50	0.00	0.00	-0.01	-0.02	-0.01	0.00	0.00	-0.60	-1.21	-0.60
12/25/15	381.67	391.88	396.92	389.05	386.50	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.60	0.00
12/26/15	381.66	391.88	396.93	389.05	386.50	-0.01	0.00	0.01	0.00	0.00	-0.60	0.00	0.60	0.00	0.00
12/27/15	381.67	391.88	396.93	389.05	386.51	0.01	0.00	0.00	0.00	0.01	0.60	0.00	0.00	0.00	0.60
12/28/15	381.67	391.88	396.94	389.06	386.52	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.60	0.60	0.60
12/29/15	381.66	391.87	396.94	389.05	386.51	-0.01	-0.01	0.00	-0.01	-0.01	-0.60	-0.60	0.00	-0.60	-0.60
Test Fuel	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10	CE10
Test Press.*	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar	2-bar
TEST NOTES:															
<ul style="list-style-type: none">➤ NEGATIVE NUMBERS REPRESENTS A ZERO PERMEATION RATE➤ THE CARBON ABSORPTION EFFICIENCY RATE WAS PRESUMED TO BE 100% DUE TO THE USE OF VIRGIN HVA-1500 ACTIVE CARBON ALONG WITH EMPLOYMENT OF A CANISTER WITH A WORKING CAPACITY EXCEEDING 16 GRAMS➤ THE AVERAGE PERMEATION RATE WAS DETERMINED FROM THE LAST FIVE (5) MEASUREMENTS; TESTING WAS EXTENDED FOR A TOTAL OF 24-DAYS TO ENSURE CONSISTENCY OF RESULTS (ESTABLISHED BY A STANDARD DEVIATION OF LESS THAN 0.10 GRAMS(DELTA WEIGHT LOSS) AMONG THE FIVE (5) SAMPLES)➤ *THE 2-BAR PRESSURE WAS OBSERVED HOWEVER A TOLERANCE +/- 1-BAR THROUGHOUT THE RECIRCULATION PERIOD WAS APPLIED.															

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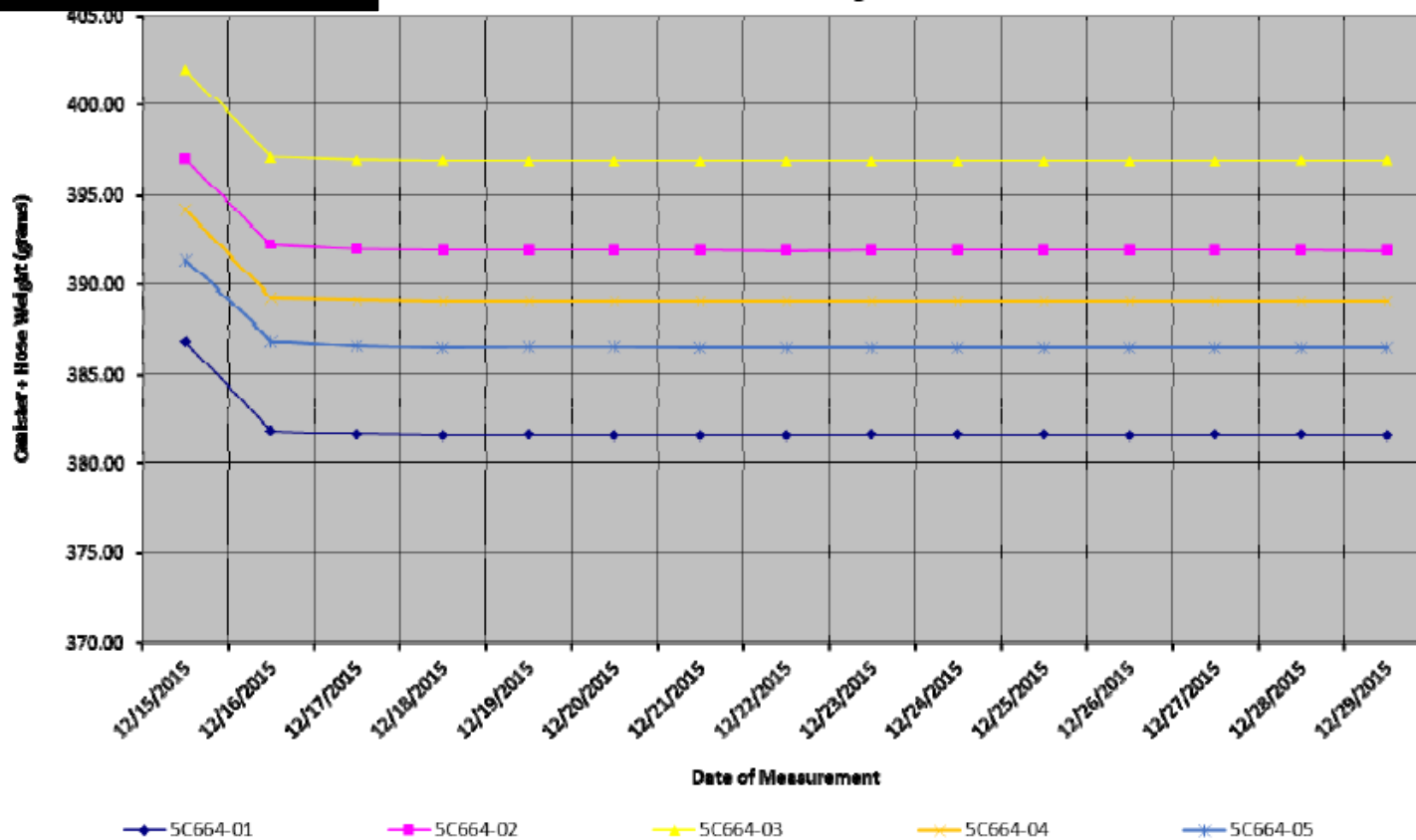
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5C664B Cooper Standard 10 x 8mm LP4540A (LTR15449) SAE J2260 Hose Permeation Testing
Fuel Hose Permeation Testing per SAEJ1737-Nov2004-5C664-1.1_2.1_3.1A
8.0-mm ID / CE10 Test Fuel / 10x8mm LP4540A
Canister Weight vs. Time



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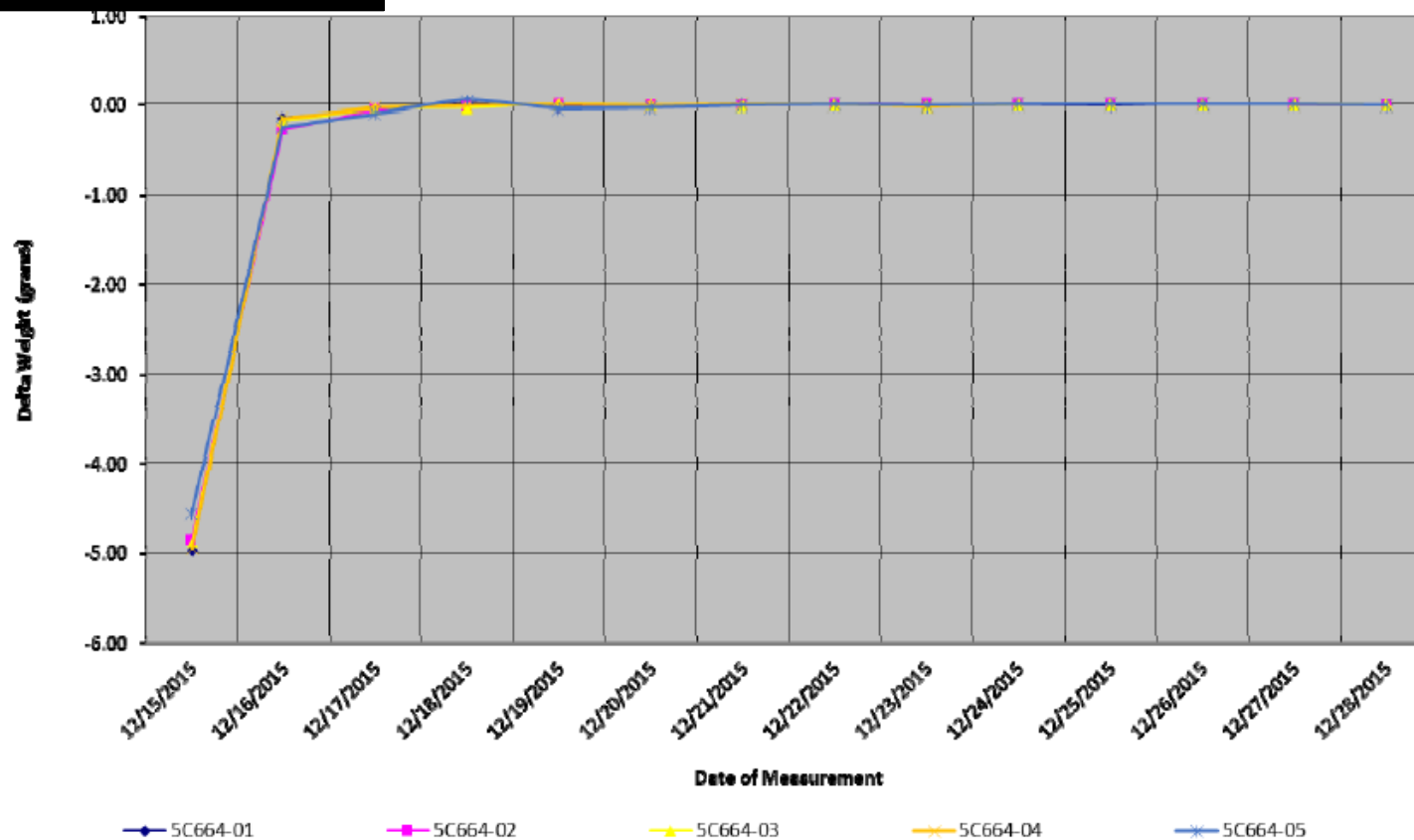
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5C664B Cooper Standard 10 x 8mm LP4540A (LTR15449) SAE J2260 Hose Permeation Testing
Fuel Hose Permeation Testing per SAEJ1737-Nov2004-5C664-1.1_2.1_3.1A
8.0-mm ID / CE10 Test Fuel / 10x8mm LP4540A
Daily Hose + Canister Weight Gain/Loss vs. Time



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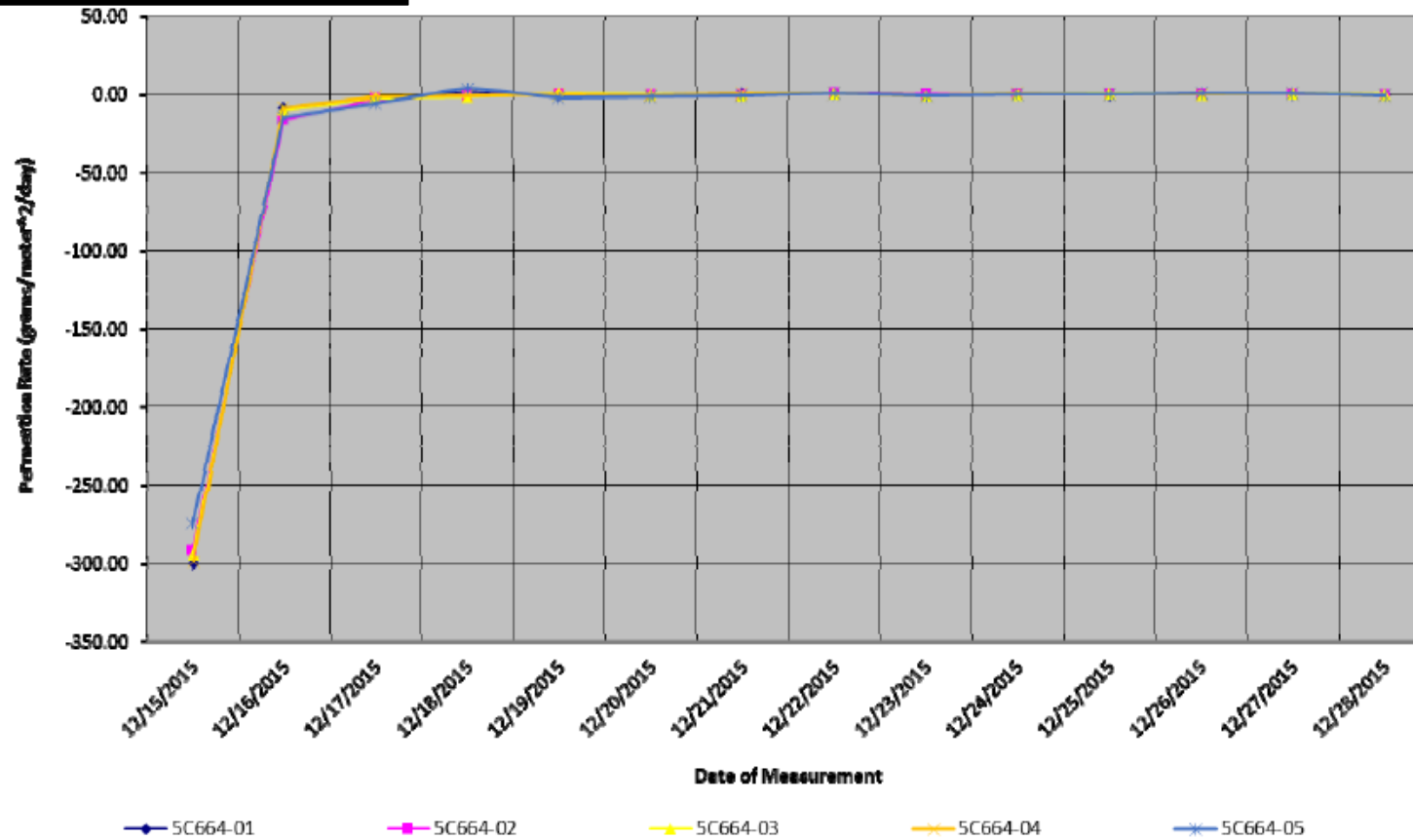
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5C6648 Cooper Standard 10 x 8mm LP4540A(LTR15449) SAE J2260 Hose Permeation Testing
Fuel Hose Permeation Testing per SAEJ1737-Nov2004-5C664-1.1_2.1_3.1A
8.0-mm ID / CE10 Test Fuel / 10x8mm LP4540A
Daily Permeation Rate vs. Time



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AVON Fuel Line Permeation Test Data (1 of 1)

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Test Procedures and Underlying Information

Date	Daily Weighings, grams			Daily Permeation Rate, g/m ² /day			Average Permeation Rate, g/m ² /day		
				A1	A2	A3	A1	A2	A3
03/16/06	1079.35	1098.21	1009.49						
03/17/06	1079.37	1098.23	1009.50	-2.77	-2.77	-1.39	-2.77	-2.77	-1.39
03/20/06	1079.37	1098.25	1009.48	0.00	-0.92	0.92	-0.69	-1.39	0.35
03/21/06	1079.37	1098.23	1009.46	0.00	2.77	2.77	-0.55	-0.55	0.83
03/22/06	1079.37	1098.24	1009.48	0.00	-1.39	-2.77	-0.46	-0.69	0.23
03/24/06	1079.36	1098.24	1009.50	0.69	0.00	-1.39	-0.17	-0.52	-0.17
03/27/06	1079.36	1098.23	1009.50	0.00	0.46	0.00	-0.13	-0.25	-0.13
03/28/06	1079.37	1098.23	1009.48	-1.39	0.00	2.77	-0.23	-0.23	0.12
03/29/06	1079.36	1098.21	1009.45	1.39	2.77	4.16	-0.11	0.00	0.43
03/30/06	1079.35	1098.22	1009.45	1.39	-1.39	0.00	0.00	-0.10	0.40
03/31/06	1079.33	1098.20	1009.43	2.77	2.77	2.77	0.18	0.09	0.55
04/03/06	1079.27	1098.19	1009.38	2.77	0.46	2.31	0.62	0.15	0.85
04/04/06	1079.25	1098.16	1009.34	2.77	4.16	5.55	0.73	0.36	1.09
04/05/06	1079.23	1098.13	1009.30	2.77	4.16	5.55	0.83	0.55	1.32
04/06/06	1079.20	1098.10	1009.27	4.16	4.16	4.16	0.99	0.73	1.45
04/07/06	1079.19	1098.09	1009.23	1.39	1.39	5.55	1.01	0.76	1.64
04/10/06	1079.12	1098.04	1009.15	3.24	2.31	3.70	1.28	0.94	1.89
04/11/06	1079.09	1098.01	1009.13	4.16	4.16	2.77	1.39	1.07	1.92
04/12/06	1079.06	1097.99	1009.10	4.16	2.77	4.16	1.49	1.13	2.00
04/13/06	1079.04	1097.97	1009.06	2.77	2.77	5.55	1.54	1.19	2.13
04/14/06	1079.01	1097.95	1009.02	4.16	2.77	5.55	1.63	1.24	2.25
Maximum Permeation Rate, g/m ² /day				4.16	4.16	5.55			

Permeation detiration % over 5 years and 8000 Km would be 0%



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Emissions Related Parts

EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I	RZR XP TURBO EPS RZR XP 4 TURBO EPS	RZR XP EPS TURBO S RZR XP 4 EPS TURBO S	Part Manufacturer Name
	Part Number	Part Number	
Electronic Control Units			Confidential Business Information
CDI	NA	NA	
ECU / ECM / PCM (Base ECU)	4014125	4014125	
ECU / ECM / PCM (Calibration)	4017307, 4017328	TURBO XP 2 - 4017192 TURBO XP4 - 4018350	
ECU / ECM / PCM (Assembly)	4017325, 4017326	TURBO XP 2 - 4017191 TURBO XP4 - 4018350	
IAC (Idle Air Control)	NA	NA	
Aftertreatment Devices			
Catalyst(s)	1262710	1262710	
Secondary Air	NA	NA	
Fuel Metering Components			
Carburetor	NA	NA	
Fuel Injector(s)	2521718	2521718	
Fuel Pump	2522058	2522058	
Fuel Rail	2521494	2521494	
Fuel Pressure Regulator	Internal to Fuel Pump	Internal to Fuel Pump	
Throttle Body	1204455	1204455	
Throttle Body Actuator	1205320	1205320	
Gas & Vapor Controls			
Crankcase Vapor Recovery	5415487	5415487	
Hose 1	NA	NA	
Hose 2	NA	NA	
Breather Box	NA	NA	
Breather Valve	NA	NA	
Liquid Vapor Separator	NA	NA	
Chrg - Air Compression Comp			
Pressure Relief Valve	3022784	3022784	
Turbocharger	3023297	3023297	
Charged Air Cooler	1240830	1240830	
Sensors - Associated with above			
Cam Phase	NA	NA	
Crank Position(s)	2411719	2411719	
ECU Sensor	NA	NA	
Knock Sensor	2410849	2410849	
Oxygen Sensor(s)	4016021	4016021	
T-Map	2413095	2413095	
Water Temp Sensor(s)	4010644	4010644	
Intake Air Sensor(s)	2413095	2413095	
Throttle Position Sensor(s)	1204455	1204455	
Vehicle Speed Sensor(s)	4013908	4013908	
Pedal Position Sensor(s)	4014042	4014042	
Electronic Throttle Control Sensor(s)	1204455	1204455	
Air Induction System			
Intake Air Box	5450815	5450815	
Adaptor	NA	NA	
Filter	7082211	7082211	
Air Cleaner	NA	NA	
Exhaust			
Head Pipe	1262331	1262331	
Resonator / Silencer	1262164	1262164	
Ignition System			
Ignition Coil(s)	4010425	4010425	
Stator / Alternator	4015340	4015340	
Spark Plug(s)	3023173	3023173	
Spark Plug Wire(s)	4017694, 4017695	4017694, 4017695	
Fuel System			
Fuel Cap	2521942	2521942	
Fuel Lines	2521488, 2521489	2521488, 2521489	
Fuel Tanks	5439834	5439834	
Vent Line	2521749	2521749	



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EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I	RZR XP TURBO EPS (EVAP) RZR XP EPS TURBO S (EVAP)	RZR XP 4 TURBO EPS (EVAP) RZR XP 4 EPS TURBO S (EVAP)
	Part Number	Part Number
Electronic Control Units		
CDI	NA	NA
ECU / ECM / PCM (Base ECU)	4015694	4015694
ECU / ECM / PCM (Calibration)	4018314, 4018351	4018316, 4018353
ECU / ECM / PCM	4018313, 4018350	4018315, 4018352
IAC (Idle Air Control)	NA	NA
Aftertreatment Devices		
Catalyst(s)	1262710	1262710
Secondary Air	NA	NA
Fuel Metering Components		
Carburetor	NA	NA
Fuel Injector(s)	2521914	2521914
Fuel Pump	2521963	2521963
Fuel Rail	2522004	2522004
Fuel Pressure Regulator	Integral to Fuel Pump	Integral to Fuel Pump
Throttle Body	1204455	1204455
Throttle Body Adaptor	1205320	1205320
Gas & Vapor Controls		
Crankcase Vapor Recovery	5415437, 5416620	5415437, 5416620
Hose 1	NA	NA
Hose 2	NA	NA
Breather Box	NA	NA
Breather Valve	NA	NA
Liquid / Vapor Separator	NA	NA
Chg - Air Compression Comp		
Pressure Relief Valves	3022784	3022784
Turbocharger	3023297	3023297
Charged Air Cooler	1240930	1240930

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Sensors		
Cam Phase	NA	NA
Crank Position(s)	2411719	2411719
EGT Sensor	NA	NA
Knock Sensor	2410369	2410369
Oxygen Sensor(s)	2413317	2413317
T-Map	2413095	2413095
Water Temp Sensor(s)	4010644	4010644
Intake Air Sensor(s)	2413095	2413095
Throttle Position Sensor(s)	1204455	1204455
Vehicle Speed Sensor(s)		
Pedal Position Sensor(s)	4014042	4014042
Electronic Throttle Control Sensor(s)	1204455	1204455
Air Induction System		
Intake Air Box	5450315	5450315
Adaptor	NA	NA
Filter	7082211	7082211
Air Cleaner	NA	NA
Exhaust		
Head Pipe	1263230	1263230
Resonator / Silencer	1263164	1263164
Ignition System		
Ignition Coil(s)	4010425	4010425
Stator / Alternator	4015340, 4017285	4015340, 4017285
Spark Plug(s)	3023173	3023173
Spark Plug Wire(s)	4017694, 4017695	4017694, 4017695
Fuel System		
Fuel Cap	2521942	2521942
Fuel Lines	2521993	2521993
Fuel Tanks	5439834	5439834
Vent Line	2521716	2521716
EVAP		
Carbon Canister	2521893	2521893
Purge Valves	2521964	2521964
Mixing Chamber	N/A	N/A
Lines		
ASM-LINE,TANK TO CANISTER	2522032	2522032
ASM-LINE,VENT TO CANISTER	2521716	2521716
ASM-LINE,CANISTER TO PURGE	2521965	2521965
HOSE,PURGE TO CHAMBER	2521966	2521966
FUEL LINE-90 CENTIMETERS	8450040-90	8450040-90
BRKT-MNT CANISTER,BLK	5263210-329	5263210-329
BRKT-MNT CANISTER,BLK	5453458-070	5453458-070
BRKT-MNT PURGE VALVE,ECOAT	5266158-329	5266158-329
BRKT-MOUNT RACK	5267307-329	5267307-329
CLIP-TRIPLE	7082246	7082246
ASM-THROTTLE BODY,DUAL-EVAP	NA	NA
HARNESS	2414527, 2415039	2414552, 2415041
FILTER-CANISTER VENT	2521750	2521750
Fuel Tank w/pump	2521962	2521962
CAP-GAS TANK	2521942	2521942
Fuel Line Assembly	2521993	2521993
Electronic Controls (ECU)	4014125	4014125
ASM-FUEL PUMP,CONTROL MODULE	2521997	2521997
Purge Valves	2521964	2521964
ASM-MANIFOLD,VBAND,EVAP	3023522	3023522



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EMISSIONS-RELATED PARTS PER 40 CFR 1068 APPENDIX I	RZR XP TURBO S Velocity, RZR XP TURBO S Velocity (EVAP)	RZR XP 4 TURBO S Velocity RZR XP 4 TURBO S Velocity (EVAP)
Electronic Control Units	Part Number	Part Number
ECU / ECM / PCM (Base ECU)	4015694 - EVAP 4014125 - Non EVAP	4015694 - EVAP 4014125 - Non EVAP
ECU / ECM / PCM (Calibration)	4017192 - TURBO S 4018351 - TURBO S EVAP	4017653 - 4 TURBO S 4018353 - 4 TURBO S EVAP
ECU / ECM / PCM	4017191 - TURBO S 4018350 - TURBO S EVAP	4017652 - 4 TURBO S 4018352 - 4 TURBO S EVAP
Aftertreatment Devices		
Catalyst(s)	1262710	1262710
Fuel Metering Components		
Fuel Injector(s)	Non Evap - 2521718 Evap - 2521914	Non Evap - 2521718 Evap - 2521914
Fuel Pump	Non Evap - 2522058 Evap - 2521963	Non Evap - 2522058 Evap - 2521963
Fuel Rail	Non Evap - 2521494 Evap - 2522004	Non Evap - 2521494 Evap - 2522004
Fuel Pressure Regulator	Integral to Fuel Pump	Integral to Fuel Pump
Throttle Body	1204455	1204455
Throttle Body Adaptor	1205320	1205320
Gas & Vapor Controls		
Crankcase Vapor Recovery	5416620	5416620
Chg - Air Compression Comp		
Pressure Relief Valves	3022784	3022784
Turbocharger	3023297	3023297
Charged Air Cooler	1240930	1240930
Sensors		
Crank Position(s)	2411719	2411719
Knock Sensor	2410369	2410369
Oxygen Sensor(s)	Non Evap - 4016021 Evap - 2413317	Non Evap - 4016021 Evap - 2413317
T-Map	2413095	2413095
Water Temp Sensor(s)	4010644	4010644
Intake Air Sensor(s)	2413095	2413095
Throttle Position Sensor(s)	1204455	1204455
Vehicle Speed Sensor(s)	4013908	4013908
Pedal Position Sensor(s)	4014042	4014042
Electronic Throttle Control Sensor(s)	1204455	1204455

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Air Induction System		
Intake Air Box	5450315	5450315
Filter	7082211	7082211
Exhaust		
Head Pipe	Non Evap - 1263231 Evap - 1263230	Non Evap - 1263231 Evap - 1263230
Resonator / Silencer	1263164	1263164
Ignition System		
Ignition Coil(s)	4010425	4010425
Stator / Alternator	Non Evap - 4015340 Evap - 4015340	Non Evap - 4017285 Evap - 4017285
Spark Plug(s)	3023173	3023173
Spark Plug Wire(s)	4017694, 4017695	4017694, 4017695
Fuel System		
Fuel Cap	2521942	2521942
Fuel Lines	Non Evap - 2521488, 2521489 Evap - 2521993	Non Evap - 2521488, 2521489 Evap - 2521993
Fuel Tanks	5439834	5439834
Vent Line	Non Evap - 2521749 Evap - 2521716	Non Evap - 2521749 Evap - 2521716
EVAP		
Carbon Canister	2521893	2521893
Purge Valves	2521964	2521964
Lines		
ASM-LINE,TANK TO CANISTER	2522032	2522032
ASM-LINE,VENT TO CANISTER	2521716	2521716
ASM-LINE,CANISTER TO PURGE	2521965	2521965
HOSE,PURGE TO CHAMBER	2521966	2521966
FUEL LINE-90 CENTIMETERS	8450040-90	8450040-90
BRKT-MNT CANISTER,BLK	5263210-329	5263210-329
BRKT-MNT CANISTER,BLK	5453458-070	5453458-070
BRKT-MNT PURGE VALVE,ECOAT	5266158-329	5266158-329
BRKT-MOUNT RACK	5267307-329	5267307-329
CLIP-TRIPLE	7082246	7082246
HARNESS	Evap - 2414527 Non Evap - 2414525	Non Evap - 2414871 Evap - 2414872
FILTER-CANISTER VENT	2521750	2521750
Fuel Tank w/pump	Evap - 2521962 Non Evap - 2522063	Non Evap - 2522063 Evap - 2521962
CAP-GAS TANK	2521942	2521942
Fuel Line Assembly	2521993	2521993
Electronic Controls (ECU)	4014125	4014125
ASM-FUEL PUMP,CONTROL MODULE	2521997	2521997
Purge Valves	2521964	2521964
ASM-MANIFOLD,VBAND,EVAP	3023522	3023522

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Periodic Maintenance Chart

MAINTENANCE

Periodic Maintenance Chart

Maintenance Chart Key

► Perform these operations more often for vehicles subjected to severe use.

D Have an authorized POLARIS dealer or other qualified person perform these services.

WARNING! Improperly performing the procedures marked with a “**D**” could result in component failure and lead to serious injury or death. Have an authorized POLARIS dealer or other qualified person perform these services.

Perform all services at whichever maintenance interval is reached first. Record maintenance and service in the Maintenance Log beginning on page 142.

Item	Maintenance Interval (whichever comes first)			Remarks
	Hours	Calendar	Miles (Km)	
Steering	-	Pre-Ride	-	Make adjustments as needed. See Pre-Ride Checklist on page 50.
Front suspension	-	Pre-Ride	-	
Rear suspension	-	Pre-Ride	-	
Tires	-	Pre-Ride	-	
Brake fluid level	-	Pre-Ride	-	
Brake pedal travel				
Brake system	-	Pre-Ride	-	
Wheels/fasteners	-	Pre-Ride	-	
Frame fasteners	-	Pre-Ride	-	
Engine oil level	-	Pre-Ride	-	
Engine intake pre-filter	-	Daily	-	Inspect; clean often
Turbo oil lines, hoses and fasteners	-	Daily	-	Inspect; replace as needed
PVT intake pre-filter	-	Daily	-	Inspect; clean often
Coolant	-	Daily	-	Check coolant level
► Power steering unit (if equipped)	-	Daily	-	Inspect daily; clean often
Headlight/taillight	-	Daily	-	Check operation
Spark arrester	-	Daily	-	Clean daily when driving in mud and water; replace a cracked or damaged arrester before operating



Periodic Maintenance Chart

	Item	Maintenance Interval (whichever comes first)			Remarks
		Hours	Calendar	Miles (Km)	
► D	Brake pad wear	10 H	Monthly	100 (160)	Inspect periodically
	Fuel System	25 H	Monthly	-	Inspect; cycle key to pressurize fuel pump; check lines and fittings for leaks and abrasion
►	Engine oil change (break-in)	25 H	1 M	-	Perform a break-in oil and filter change
►	Front gearcase (demand drive) fluid	25 H	1 M	-	Perform a break-in oil level check
►	Transmission (main gearcase) oil	25 H	1 M	-	Perform a break-in oil level check
D	Drive clutch bolt re-torque	25 H	1 M	-	See your dealer or other qualified person to have bolt re-torqued to 96 ft-lbs (130 Nm)
	Battery	25 H	Monthly	250 (400)	Check terminals; clean; test
►	Engine breather filter (if equipped)	25 H	Monthly	150 (250)	Inspect; replace if necessary
►	Air filter	25 H	-	500 (800)	Inspect; replace if soiled
►	General lubrication	50 H	3 M	500 (800)	Lubricate all fittings, pivots, cables, etc.
D	Throttle pedal	50 H	6 M	500 (800)	Inspect for free movement; replace pedal as needed
	Throttle body air intake ducts/flange	50 H	6 M	300 (500)	Inspect duct for proper sealing/air leaks
	Shift Linkage	50 H	6 M	500 (800)	Inspect, adjust
►	Front Suspension	50 H	6 M	500 (800)	Lubricate
►	Rear Suspension	50 H	6 M	500 (800)	Lubricate
	Cooling system (if applicable)	50 H	6 M	500 (800)	Inspect coolant strength seasonally; pressure test system yearly
D	Clutches (drive and driven)	50 H	6 M	500 (800)	Inspect; clean; replace worn parts
	Drive belt	50 H	6 M	500 (800)	Inspect; replace as needed
►	Engine oil change	50 H	6 M	1000 (1600)	Change the oil and filter
►	Oil lines, hoses and fasteners	50 H	6 M	1000 (1600)	Inspect for leaks and loose fittings; replace if necessary

► Perform these procedures more often for vehicles subjected to severe use.

D Have an authorized POLARIS dealer or other qualified person perform these services.



MAINTENANCE

Periodic Maintenance Chart

Item		Maintenance Interval (whichever comes first)			Remarks
		Hours	Calendar	Miles (Km)	
▶	Front gearcase (demand drive) fluid	100 H	12 M	1000 (1600)	Change fluid
▶	Transmission (main gearcase) oil	100 H	12 M	1000 (1600)	Change fluid
D	Fuel system	100 H	12 M	1000 (1600)	Cycle key to pressurize fuel pump; check for leaks at fill cap, fuel lines/rail and fuel pump; replace lines every two years
▶	Spark plugs	100 H	12 M	1000 (1600)	Inspect; replace as needed, torque to specification
▶	Radiators	100 H	12 M	1000 (1600)	Inspect; clean external surfaces
▶	Cooling hoses	100 H	12 M	1000 (1600)	Inspect for leaks
▶	Engine mounts	100 H	12 M	1000 (1600)	Inspect
▶	Intake manifold mounts	100 H	12 M	1000 (1600)	Inspect
	Exhaust muffler/ pipe	100 H	12 M	1000 (1600)	Inspect
▶	Wiring	100 H	12 M	1000 (1600)	Inspect for wear, routing, security; apply dielectric grease to unsealed connectors only, if subjected to water, mud, etc.
▶	Shock seals	100 H	-	-	Inspect shock seals
▶ D	Shocks	-	12 M	1500 (2400)	See your dealer or other qualified person for oil change/seal inspection.
D	Front wheel bearings	100 H	12 M	1000 (1600)	Inspect; replace as needed

▶ Perform these procedures more often for vehicles subjected to severe use.

D Have an authorized POLARIS dealer or other qualified person perform these services.



Periodic Maintenance Chart

Item		Maintenance Interval (whichever comes first)			Remarks
		Hours	Calendar	Miles (Km)	
D	Brake fluid	200 H	24 M	2000 (3200)	Change every two years
►	Spark arrester	-	24 M	2000 (3200)	Clean daily when driving in mud and water; replace a cracked or damaged arrester before operating (see pages 106-107)
	Ratcheting cam chain tensioner	200 H	-	2000 (3200)	Check; replace as needed
	Valve lash	200 H	-	2000 (3200)	Check; adjust as needed
	Suspension bushings	250 H	24 M	2000 (3200)	Inspect; replace if necessary
►	Spark plugs	500 H	36 M	5000 (8000)	Replace, torque to specification
►	Coolant	-	60 M	-	Replace coolant
D	Toe adjustment	-			Inspect periodically; adjust when parts are replaced
	Headlight aim	-			Adjust as needed

► Perform these procedures more often for vehicles subjected to severe use.

D Have an authorized POLARIS dealer or other qualified person perform these services.



Emissions Limited Warranty

WARRANTY

U.S.A. EPA Emissions Limited Warranty

This emissions limited warranty is in addition to the POLARIS standard limited warranty for your vehicle. POLARIS Industries Inc. warrants that at the time it is first purchased, this emissions-certified vehicle is designed, built and equipped so it conforms with applicable U.S. Environmental Protection Agency emission regulations. POLARIS warrants that the vehicle is free from defects in materials and workmanship that would cause it to fail to meet these regulations.

The warranty period for off-road vehicles 100cc or greater emissions-certified vehicles starts on the date of purchase by original retail purchaser and continues for a period of 500 hours of engine operation, 5000 kilometers (3100 miles) of vehicle travel, or 30 calendar months from the date of purchase, whichever comes first. The warranty period for ATVs less than 100cc emissions-certified vehicles starts on the date of purchase by original retail purchaser and continues for a period of 250 hours of engine operation, 2500 kilometers (1550 miles) of vehicle travel, or 30 calendar months from the date of purchase, whichever comes first. This EPA emissions warranty period is extended for at least as long as the standard factory warranty that Polaris provides on the vehicle as a whole. The EPA emissions warranty period does not further extend if you purchase additional warranty coverage in the form of a service contract or other paid warranty extension, but emission-related parts may be covered subject to the terms of any such paid service contract or paid warranty extension.

This emissions limited warranty covers components whose failure increases the vehicle's regulated emissions, and it covers components of systems whose only purpose is to control emissions. Repairing or replacing other components not covered by this warranty is the responsibility of the vehicle owner. This emissions limited warranty does not cover components whose failure does not increase the vehicle's regulated emissions.

For exhaust emissions, emission-related components include any engine parts related to the following systems:

- Air-induction system
- Fuel system
- Ignition system
- Exhaust gas recirculation systems

The following parts are also considered emission-related components for exhaust emissions:

- Aftertreatment devices
- Crankcase ventilation valves
- Sensors
- Electronic control units



U.S.A. EPA Emissions Limited Warranty

The following parts are considered emission-related components for evaporative emissions:

- Fuel Tank
- Fuel Cap
- Fuel Line
- Fuel Line Fittings
- Clamps*
- Pressure Relief Valves*
- Control Valves*
- Control Solenoids*
- Electronic Controls*
- Vacuum Control Diaphragms*
- Control Cables*
- Control Linkages*
- Purge Valves
- Vapor Hoses
- Liquid/Vapor Separator
- Carbon Canister
- Canister Mounting Brackets
- Carburetor Purge Port Connector

*As related to the evaporative emission control system.

Emission-related components also include any other part whose only purpose is to reduce emissions or whose failure will increase emissions without significantly degrading engine/equipment performance.

The exclusive remedy for breach of this limited warranty shall be, at the exclusive option of POLARIS, repair or replacement of any defective materials, components or products. THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THIS WARRANTY. POLARIS SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER CONTRACT, NEGLIGENCE OR OTHER TORT OR OTHERWISE. THIS EXCLUSION OF CONSEQUENTIAL, INCIDENTAL, AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE.

ALL IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE LIMITED IN DURATION TO THE WARRANTY PERIOD DESCRIBED HEREIN. POLARIS DISCLAIMS ALL EXPRESS WARRANTIES NOT STATED IN THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply if it is inconsistent with the controlling state law.

This limited warranty excludes failures not caused by a defect in material or workmanship. This limited warranty does not cover damage due to accidents, abuse or improper handling, maintenance or use. This limited warranty also does not cover any engine that has been structurally altered, or when the vehicle has been used in racing competition. This limited warranty also does not cover physical damage, corrosion or defects caused by fire, explosions or other similar causes beyond the control of POLARIS.



WARRANTY

U.S.A. EPA Emissions Limited Warranty

Owners are responsible for performing the scheduled maintenance identified in the owner's manual. POLARIS may deny warranty claims for failures that have been caused by the owner's or operator's improper maintenance or use, by accidents for which POLARIS has no responsibility, or by acts of God.

Any qualified repair shop or person may maintain, replace, or repair the emission control devices or systems on your vehicle. An authorized POLARIS dealer can perform any service that may be necessary for your vehicle. POLARIS also recommends Pure POLARIS parts however equivalent parts can be used for such service. It is a potential violation of the Clean Air Act if a part supplied by an aftermarket parts manufacturer reduces the effectiveness of the vehicle's emission controls. Tampering with emission controls is prohibited by federal law.

CALIFORNIA RESIDENTS

Certain POLARIS Off-Road Vehicles are available in 49-state and 50-state versions. Only the 50-state models are certified for sale in California. The 50-state models available for sale in California are identified by the letter "B" in the ninth position of the model number (e.g., R16RTE87B). The POLARIS 50-state models are designed and built with features such as a reduced cargo box capacity. Any modifications to these features may be a violation of the applicable California regulations and may void this limited emissions warranty offered by the manufacturer.

The California evaporative emissions control system limited warranty statement below applies to your Off Highway Recreational Vehicle in California if the vehicle is equipped with an evaporative emission control system and is labeled with a Vehicle Evaporative Emissions Control Information label indicating that the vehicle conforms to California evaporative emissions regulations applicable to new off-road sport vehicles, all-terrain vehicles, or off-road utility vehicles. These vehicles are referred to as "OHRV-EVAP" below.

CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Polaris Industries Inc. is pleased to explain the emission control system warranty on your model year 2018 and newer Off Highway Recreational Vehicle. In California, new off-highway recreational vehicles must be designated, built and equipped to meet the State's stringent anti-smog standards. Polaris must warrant the emission control system on your OHRV-EVAP for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your OHRV-EVAP.



Your emission control system may include parts such as the carburetor or fuel injection system, fuel tank, fuel hoses, carbon canister, engine computer and Evaporative Emissions Control System parts listed in the U.S.A. EPA Emissions Limited Warranty. Also included may be hoses, belts, connectors and other emission-related assemblies. Where a warrantable condition exists, Polaris will repair your OHRV-EVAP at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:

For model year 2018 and newer OHRV-EVAP models.

For 30 months, or 2500 miles, or 250 hours, whichever comes first, except for evaporative components over the OHRV high-priced warranty value, which is covered for 60 months, or 5000 miles, or 500 hours, whichever comes first.

If any emission-related part on your OHRV-EVAP is defective, the part will be repaired or replaced by Polaris.

OWNER'S WARRANTY RESPONSIBILITIES:

As the OHRV-EVAP owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Polaris recommends that you retain all receipts covering maintenance on your OHRV-EVAP, but Polaris cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of a scheduled maintenance.

As an owner you are responsible for presenting your OHRV-EVAP to a Polaris dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

As an OHRV-EVAP owner, you should also be aware that Polaris may deny you warranty coverage if your OHRV-EVAP or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

ADD-ON OR MODIFIED PARTS

An add-on or modified part must be compliant with applicable CARB emission control standards. A violation of this requirement is punishable by civil and/or criminal punishment.

If you have any questions regarding your warranty rights and responsibilities, you should contact Polaris Customer Assistance at 1-800-POLARIS (1-800-765-2747) or the California Air Resources Board at 9528 Telstar Avenue, El Monte, CA 91731.

United States & Canada: 1-800-POLARIS (1-800-765-2747)

French: 1-800-268-6334



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Aftertreatment Device Details



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Emissions Fee Payment Receipt

Pay.gov - Receipt

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Receipt

Tracking Information

Pay.gov Tracking ID: 26F8CCR8

Agency Tracking ID: 75674083038

Form Name: EPA MVECP Fee Filing Form (for electronic payments only)

Application Name: Motor Vehicle and Engine Compliance Program Fees

Payment Information

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Transaction Date: 02/06/2019 10:13:49 AM EST

Payment Date: 02/06/2019

Engine Family: LPOLX.924PFC

ICI VIN Number:

Process Code: New

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<https://www.pay.gov/public/collection/confirm/print/26F8CCR8>

2/6/2019



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Evaporative Application for Certification
System Model A1B
EVAP Family LPOLU0040APC

Certification and Compliance Division Attn: John LaCroix Office of Transportation and Air Quality U.S. Environmental Protection Agency 2000 Traverwood Drive Ann Arbor, Michigan 48105	Mr. Alan Leung California Air Resources Board Emissions Compliance Automotive Regulations and Science Division 9480 Telstar Avenue Ste # 4 El Monte, CA 91731
Polaris Industries Inc. requests confidential treatment of the information contained herein, pursuant to 5 U.S.C. §552(b)(4), 18 U.S.C. §1905, the EPA regulations in Part 2 of Title 40 of the Code of Federal Regulations, and the CARB regulations in 13 CCR 91000-91022.	

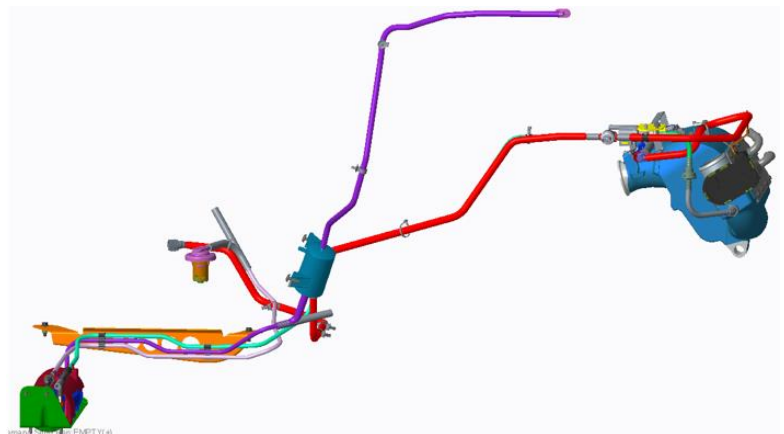
Polaris requests certification for the model year 2020 EVAP System Model A1B in the Evaporative Family LPOLU0040APC. The current list of vehicles covered by this evaporative emissions family are shown below, with the new vehicle models being added with this submission shown in red font.

Exhaust Engine Family	Prior 50-State Models w/ Evap	Models Being Added in This Submission
LPOLX.924PFC	None (new evap family)	RZR XP TURBO EPS RZR XP 4 TURBO EPS RZR XP EPS TURBO S RZR XP 4 EPS TURBO S RZR XP EPS TURBO S Velocity RZR XP 4 EPS TURBO S Velocity

Please call me at (651) 408-6301 if you have any questions regarding this application.

Sincerely,

Michal Zieba, Product Compliance
Polaris Industries Inc.
7290 East Viking Blvd
Wyoming, MN 55092
michal.zieba@polaris.com





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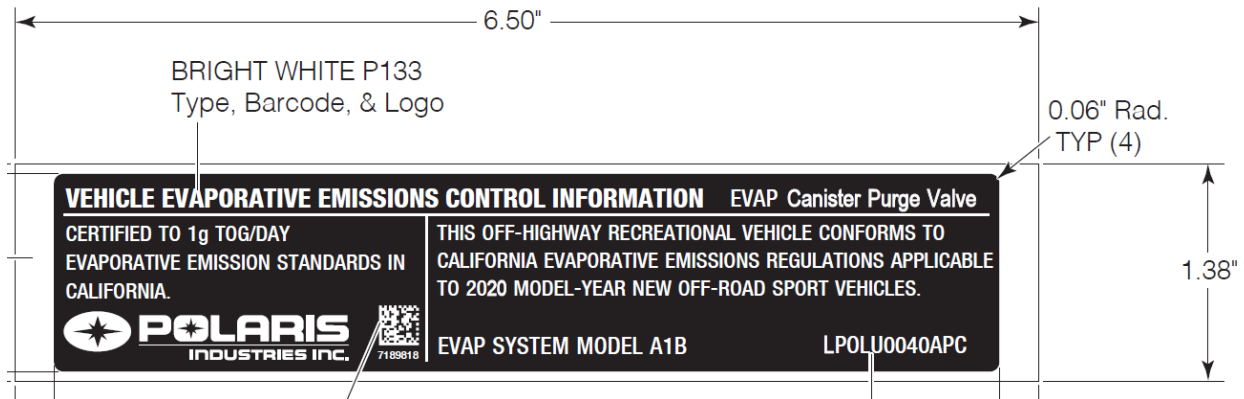


13 CCR 2419.4 (b) (4)

(B), (G) Emissions Control Label

The VECI label(s) for the exhaust emission families served by EVAP family LPOLU0040APC are included in the corresponding exhaust emissions application.

The separate EVAP label below for evaporative emissions family LPOLU0040APC was designed specifically to meet the requirements of 13 CCR 2419.4 (b) (4).



The emissions control labels used on Polaris emissions-certified engines have been designed for the expected off-road environment and will remain durable and legible during the useful life. These labels conform to the durability requirements in Z535.4-2007.

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Fuel Info												
Fuel Type	Gasoline E10					Density (kg/l)	0.7430					
Fuel Name	CARB LEV III FE1521GP10					HC Ratio	2.1880					
Batch No.	FE1521GP10					OC Ratio	0.0000					
Fuel Pump Number	PFA-245 11518 2521963 115180002					C.W.F.	81.4400					
RVP	7.2					N.H.V.	41.6600					
Bag Analysis Results												
	THC	CO	NOx	CO2	HC+NOx	CH4	NMHC	N2O	NMHC+NOx	PN	Fuel Cons.	Distance
	(g/km)	(g/km)	(g/km)	(g/km)	(g/km)	(g/km)	(g/km)	(g/km)	(g/km)	(#/km)	(l/100km)	(km)
Weighted Total	0.120	1.876	0.524	285.868	0.644	0.018	0.104	0.005	0.628		12.8436	10.883
Sample 1	0.242	4.736	0.608	284.842	0.850	0.035	0.210	0.012	0.818		13.0138	4.658
Sample 2	0.087	0.939	0.476	293.468	0.562	0.012	0.075	0.003	0.551		13.1112	6.220
Sample 3	0.106	1.913	0.575	268.866	0.681	0.017	0.091	0.005	0.665		12.0891	4.666
EPA 75 Class I MC												
	CO	HC	HC+NOX									
Limit	15.00	1.20	1.50									
DF	1	1	1									
DF Result	1.88	0.12	0.64									
% Limit	12.51%	10.02%	42.95%									
Status	PASS	PASS	PASS									
Post Test Limit Checks												
	Checked Parameter	Unit	Average	Minimum	Maximum	Lo Limit	Hi Limit	Status				
Cell Temperature	Continuous/Cell Temperature	°C	26	24	27	20	30	PASS				
Coastdown Terms												
	Inertia	A	B	C								
	(kg)	(N)	(N/(km/h))	(N/(km/h)²)								
Dyno	1080	85.59	0	0.0357	Rolls Configuration							
Highway	1080	85.59	0	0.0357	Wheelbase (mm)							
Drive Trace Indices												
	ER	DR	EER	ASCR	IWR	RMSSE	Error Count	Error Time s	Violation Count	Violation Time s		
Cycle	0.90%	0.16%	0.71%	1.54%	2.30%	0.33	0	0.00	0	0.00		
Phase 1	0.77%	0.11%	0.65%	1.28%	2.09%	0.30						
Phase 2	0.77%	0.14%	0.63%	1.39%	1.91%	0.37						
Phase 3	1.19%	0.24%	0.93%	2.23%	3.50%	0.29						

Quality Assurance

Execution log has 0 Errors, 0 Warnings
Analysis log has 1 Errors, 7 Warnings



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TEST RESULTS

Table 1. Fuel tank Slosh Test details; start and end date and times, total run time, average frequency and acceleration, and total number of cycles complete.

FUEL TANK SLOSH TEST DURABILITY							
Date Start	Time Start	Date End	Time End	Runtime [Hr]	Ave Freq [Hz]	Ave ACC [g]	Cycles
04-05-17	12:26:11	15-05-17	16:59:50	148.37	1.99	0.249	10,000,000

Canister Preconditioning

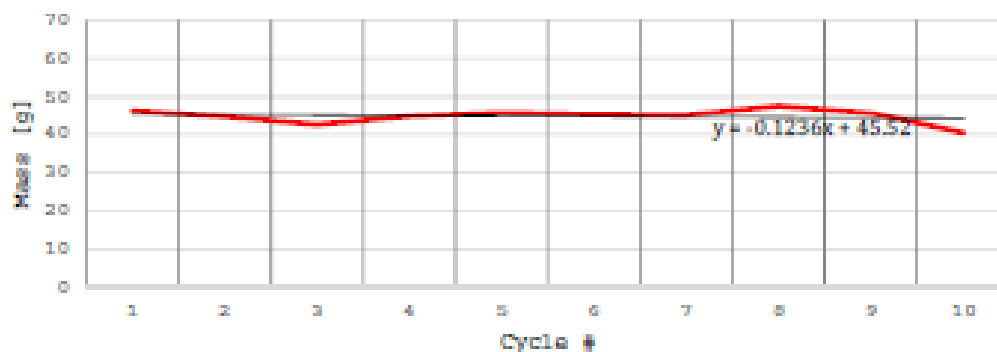


Figure 3. Loaded weight of ten (10) breakthrough loads on the carbon canister showing repeatability.

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Test Procedures and Underlying Information



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Test Procedures and Underlying Information

Table 2. Loaded weight of each of the ten (10) repeatable breakthrough loads and determined Nominal Working Capacity.

Load #	Weight Loaded [g]
1	46.3
2	44.7
3	42.6
4	44.8
5	45.8
6	45.3
7	45.2
8	47.6
9	45.7
10	40.4
Working Capacity [Average]:	44.84

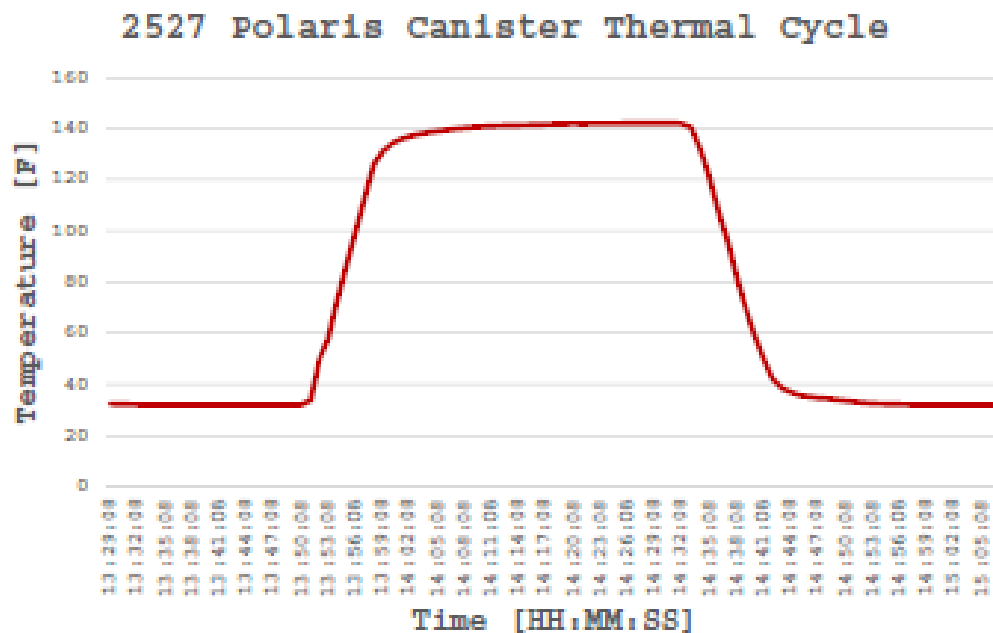


Figure 4. Example of one (1) cycle of the Thermal Cycling Test on the carbon canister.

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Test Procedures and Underlying Information



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Table 3. Vibration Test details; date conducted, average acceleration and frequency, and total duration.

Date	Acceleration Ave [g's]	Frequency Ave [Hz]	Duration [Hrs]
10-04-17	4.51	60.00	46.52

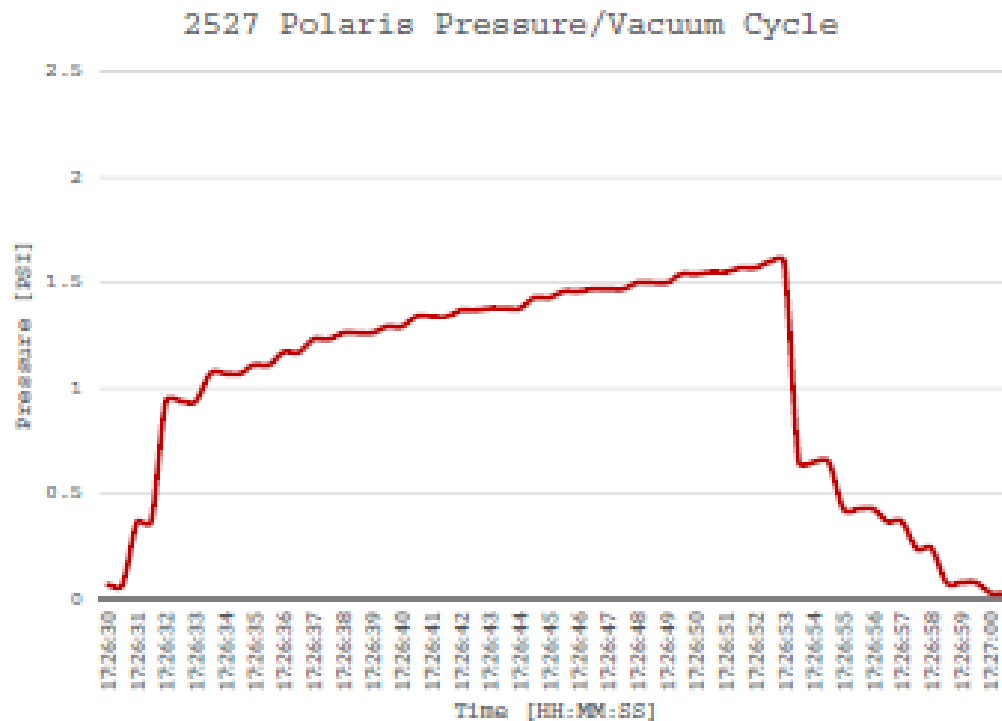


Figure 5. Example of one (1) cycle of the Pressure/Vacuum Test on the fuel tank.

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Test Procedures and Underlying Information



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Test Procedures and Underlying Information

Table 4. Carbon Canister Protection Test details; date conducted, initial carbon canister weight, and post canister weight following each inclination.

Tip Test 100% fuel nominal capacity					
Date	Initial Weight [g]	Weight Front +30° [g]	Weight Back -30° [g]	Weight Side A +15° [g]	Weight Side B -15° [g]
27-01-17	799.0	799.1	799.0	799.1	799.1

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TEST RESULTS

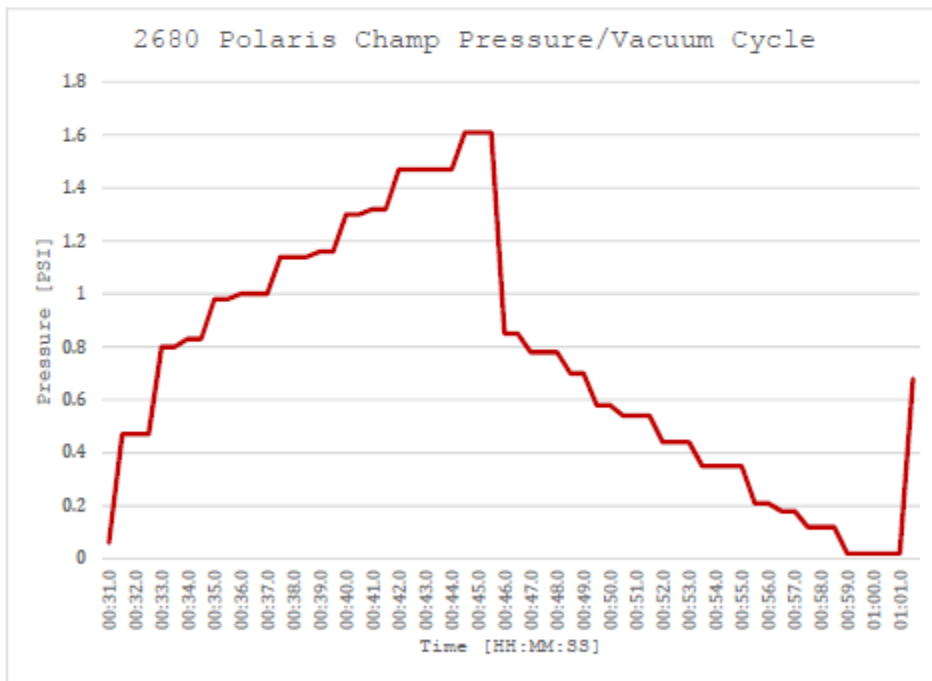


Figure 1. Example of one (1) cycle of the Pressure/Vacuum Test on the fuel tank.

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Test Results

VVVT SHED	
WEMI	
----- TEST ID -----	
REPORT FILENAME (TEST ID.TXT)	1807281915.txt
DATALOG FILENAME (TEST ID.CSV)	1807281915.csv
----- TEST RESULTS -----	
Test Name: EPA - 72HR 72-96-72	
MAX Error Value: 0	
THC Rise / Test: 0.849 gm	
THC Max Phase Rise: 0.371 gm	Total 24hr HC rise with Ethanol Factor (24%) = 0.460g
CH4 Rise / Test: 0.000 gm	
CH4 Max Phase Rise: 0.000 gm	
Engine Off Time not Required	
----- TEST TIME -----	
START DATE	7/25/2018
START TIME (AT DOOR SEAL)	19:16:51
END DATE	7/28/2018
END TIME (AFTER FINAL SAMPLE)	19:17:54
TEST LENGTH	0072:02:03

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----- TEST RESULTS -----

Test Name: CARB - 90MIN 86F HOT SOAK

MAX Error Value: 1

THC Rise / Test: 0.055 gm

THC Max Phase Rise: 0.055 gm

CH4 Rise / Test: 0.000 gm

CH4 Max Phase Rise: 0.000 gm

Engine Off Time Recorded at 10:35:56

----- TEST TIME -----

START DATE 7/25/2018

START TIME (AT DOOR SEAL) 10:38:27

END DATE 7/25/2018

END TIME (AFTER FINAL SAMPLE) 12:10:27

TEST LENGTH 0001:32:00

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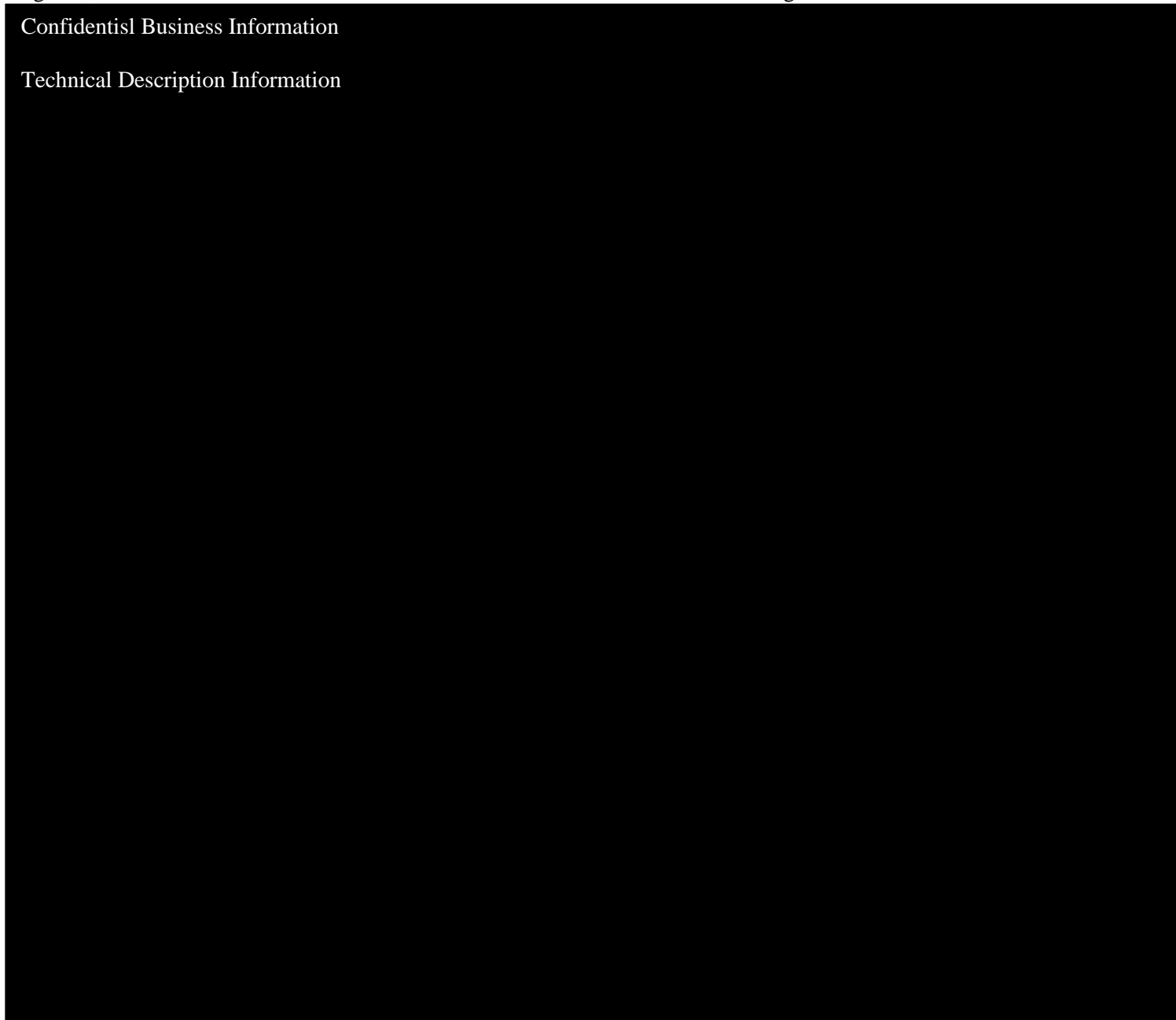
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Verify Data

Evaporative Family Description (A1B System)				
Manufacturer	<u>Polaris Industries Inc.</u>		Engine Family	<u>LPOLX.924PFC</u>
Model Year	2020		Evaporative Family	<u>LPOLU0040APC</u>
Manufacturer Size (Check One)	<u>Large</u> <input checked="" type="checkbox"/>	<u>Small</u> <input type="checkbox"/>		
Advanced Fuel System Credits	<u>Yes</u> <input checked="" type="checkbox"/>	<u>No</u> <input type="checkbox"/>		
Compliance Option (Check One)	<u>72-Hr. Diurnal</u> <input checked="" type="checkbox"/>	<u>24-Hr. Diurnal</u> <input type="checkbox"/>	Certify by Design Using Mfr.'s Data <input type="checkbox"/>	Certify by Design Reference CARB <input type="checkbox"/>
Durability Basis (Check One)	<u>UL Vehicle</u> <input checked="" type="checkbox"/>	<u>DF</u> <input type="checkbox"/>		

Emission Data Vehicle (EDV)					
Engine Family	<u>KPOLX.924PFC</u>	Evaporative Family	<u>KPOLU0040APC</u>	EDV Model Year	<u>2019</u>
Fuel System	Carburetor <input type="checkbox"/> MFI <input type="checkbox"/>	TBI <input type="checkbox"/> SFI <input checked="" type="checkbox"/>	DFI <input type="checkbox"/>	Other	<input type="checkbox"/>
Canister	Volume (cc) <u>746</u>	W/C (grams) <u>44.8</u>	N/A	<input type="checkbox"/>	
Purge Valve	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Pressure Vent Valve	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Durability Data Vehicle (DDV)					
Engine Family	<u>KPOLX.924PFC</u>	Evaporative Family	<u>KPOLU0040APC</u>	DDV Model Year	<u>2019</u>
Fuel System	Carburetor <input type="checkbox"/> MFI <input type="checkbox"/>	TBI <input type="checkbox"/> SFI <input checked="" type="checkbox"/>	DFI <input type="checkbox"/>	Other	<input type="checkbox"/>
Canister	Volume (cc) <u>746</u>	W/C (grams) <u>44.8</u>			
Purge Valve	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Pressure Vent Valve	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

72-Hour Diurnal Test	
CERT (TOG/day)	<u>0.46</u>
STD (TOG/day)	<u>1</u>
EFEL	<u>0.6</u>
DF	<u>n.a.</u>
Pass Fuel Leakage Tip Test?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

24-Hour Diurnal Test					
CERT (TOG/day)	N.A.				
STD (TOG/day)	N.A.				
EFEL	N.A.				
DF	N.A.				
Vented Emissions Compliance. 6.4.2.5. a)	NVL \geq V _{total} ?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
(Select One) 6.4.2.5. b)	Use 2 psig PVV?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
6.4.2.5. c)	No PVV release?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Pass Fuel Leakage Tip Test?	Yes <input type="checkbox"/>	No	<input type="checkbox"/>		

SVM Certify By Design			
	Fuel Tank Perm.	Fuel Hose Perm.	Canister Working Capacity per Fuel Tank Volume
CARB Component EO Number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CERT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pass Fuel Leakage Tip Test?	Yes <input type="checkbox"/>	No	<input type="checkbox"/>

ABBREVIATIONS: CARB=California Air Resources Board; EO=Executive Order; TOG=total organic gases; CERT=certification level; STD=certification standard; EFEL=evaporative family emission limit; DF=deterioration factor; UL=useful life; EDV=emission data vehicle; DDV=durability data vehicle; TBI=throttle body fuel injection; MFI=multiport fuel injection; SFI=sequential multiport fuel injection; DFI=direct gasoline fuel injection; psig=pounds per square inch - gauge; W/C=canister gasoline working capacity; NVL=normalized vapor load.